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ONE GOOD PIECE OF WORK.

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Perhaps something of interest to the medical profession, and also the general reader will be found in the relation of legal proceedings in the courts of this country recently, growing out of the enforcement of the law against practitioners of medicine, without possessing the qualifications required. In another view it is of interest as showing the mistaken conception of many good citizens, who fail to understand that the provisions of the law are safeguards of the public health and welfare, instead of enactments to promote monopoly in the practice of medicine.

The State of Kansas has had for years past upon its statute books very elaborate laws concerning medical practice, and it will be necessary to allude as briefly as possible to such provisions as are involved in order to satisfactorily understand the application of the law to the facts hereafter stated in this communication.

In the first place there is provided a state board of health, consisting of nine physicians of at least seven years practice, of good moral character, graduates of some respectable medical college, a majority of said board are not to be of one school of medicine, and the term of office is three years, so arranged that one third of them retire annually unless re-appointed, by the governor, by and with the advice of the senate. This board has general supervision of the health interests of the state, and the county commissioners are local boards, who appoint a health officer resident physician who is ex-officio a member of the local board, and whose duties are prescribed; such state and local boards within the duties

provided, cover all questions of sanitation, epidemics, quarantines, statistics of health, record of deaths, etc.

In addition to the above mentioned board, there is provided by statute a state board of registration and examination, to regulate the practice of medicine, surgery, and osteopathy in the State of Kansas. This board is also appointed by the governor with the advice and consent of the senate, and is composed of seven members who shall have received the degree of doctor of medicine from some reputable medical college at least six years prior to their appointment, and the term of office is fixed at four years, and no one school shall have a majority of such board. It is to this board, that applications must be made by all persons intending to practice medicine, surgery or osteopathy, and which determines the qualifications necessary to practice medicine in Kansas. The requisite qualifications include generally a diploma of graduation in medicine or surgery,or an examination resulting in satisfaction of the board of the qualifications of the applicant, and thereupon a certificate is issued, which is equivalent to a license to practice. This does not apply to medical officers commissioned in the army, navy and marine service of the United States. The above named certificate is to be recorded in the office of the county clerk of the county.

The definition of the practice of medicine is defined in the statute, and is substantially: that any person shall be regarded as practicing medicine and surgery within the meaning of the law, who shall prescribe, or recommend for a fee, the use of any drug or medicine, or perform surgical operations for the cure or relief of injuries or disease of another person, or who uses the words or titles of Dr., or M. D., in connection with his name representing himself as a practitioner of medicine. The law is not to be construed as interfering with any religious beliefs in the treatment of disease, provided quarantine regulations relating to contagious diseases are not infringed. And it is further a part of the law among other exemptions, "Nor shall anything in this act apply to the adminstration of domestic medicines,nor to prohibit gratuitous services." The validity of the law has been decided heretofore by the Supreme Court of the state, and among intelligent people the necessity of such laws in general is acknowledged. The penalty attached to violation of the statute referred to is a fine of not less than fifty dollars, nor more than two hundred dollars, and such guilty party shall receive no compensation for services rendered, and it is made the duty of the secretary of the state board of registration and examination to see the act enforced.

This much as a prelude to the litigation had so far been in this county by a prosecution for a flagrant violation of the law above referred to.

According to the evidence and admissions of the defendant, one Joseph Huff for some twelve years past has held himself out as able to cure cancer, and during that time has used what he declared to be a combination of roots and herbs known only to himself, and to others who for compensation had procured his recipe, and that his services and treatment were not adminstered gratuitously, but on the contrary he had demanded and received liberal fees. Complaint against Huff was first made before a justice of the peace, such officer in Kansas having concurrent jurisdiction with the District Court for the trial of misdemeanors, and the defendant is likewise entitled to a jury of twelve of his peers. The arrest of the defendant on a warrant for the offense charged, brought forth a storm of denunciation against the prosecution, and the members of the Franklin County Medical Society were astonished to learn themselves charged with motives of selfishness and persecution. Large numbers of people who had been afflicted with sores of some kind or another, and which doubtless nature would have cured anyhow, claimed to have received benefit from the salve or medicine of defendant, and were ready to testify that they had been cured of cancer, forgetful of their common sense in regarding the law, as whether defendant's remedies were successful or otherwise was not the question for trial. This conclusion is illustrated by the action of the jury of twelve men in the court of the justice of the peace, who failed to agree, and stood seven for acquittal and five for the conviction of the defendant, and were discharged. In this trial the counsel for defendant, strenuously insisted on the innocence of his client, on the ground that the medicines used by him, were domestic remedies prepared from herbs, and that the exception with reference to such remedies was clearly within the purview of the law, and exempting the defendant from liability to punishment. The instructions of the judge to the jury in the District Court hereinafter shown, (and doubtless the correct law of the case), demonstrate how strangely the impulsive and unthinking people act in reference to disease and remedies. It surely can be asserted without fear of contradiction, that the terrible disease generally known as cancer, and the increase of the victims afflicted with it fatally, has enlisted and more than ever now enlists the most laborious research and scientific skill, and with the ethics of the medical profession, that when any remedy for the disease shall be discovered, it will be given out broadcast to the world as common property, it is deplorable to observe the credulity of the masses in believing in, and resorting to so called cures which simply aggravate, and hasten fatal consequences. It may be proper to remark, that the profession itself has assisted and does contribute to the lamentable state of credulity on the subject, for it is not an uncommon occurrence for members of the profession

to denominate loosely, many kinds of ulcers and sores as cancers, when it is a fact that only a microscopic examination can determine their true character.

But proceeding with the history of the legal proceedings, it is sufficient to say that the results of the mistrial befor the justice and jury, the re-trial would necessarily follow, and an adjourned day was fixed for that purpose. In the meantime, however, the friends of defendant were active in supplying the newspapers with declarations as to former cures, and inflammatory comments by counsel and others, until it was apparent that "The Power of the Press," as Mr. Dooley dissects it in the October American magazine, was showing its bad influence on the adminstration of justice on the law and the evidence in the case. In this exigency, the prosecution wisely dismissed the proceedings before the justice, and the county attorney filed information in the District Court against the defendant, and he was re-arrested and held to bail for his appearance at the September term of the Court. The defendant on the advice of his counsel refused to give bail, and went to jail and remained for several weeks until his recent trial and conviction.

The information against defendant contained three counts. Each of the counts charged the defendant with practicing medicine for a fee contrary to law, but neither count described the disease as it was not necessary, the gist of the action being the practicing of medicine for fees in violation of the law. The first and second counts according to the evidence disclosed the treatment by defendant of two married female patients afflicted with cancer of the breast. The third count was treatment of a male patient, and this charge was not pressed by the prosecution, and the nature of his disease not shown, but the understanding is general that it was also called cancer. The defendant was shown by the evidence to have received twenty-five dollars and fifty dollars respectively from the two patients referred to in the first and second counts of the information, and it may be proper to add, that Mrs. McNutt named in first count is upon her deathbed after weeks of the treatment by defendant, and a Mrs. Stewart having undergone an operation at Bethany Hospital, Kansas City, Kansas, for the removal of the tumor, is said to be now improving, and has returned home to this county.

In view of the excitement engendered, the trial in the District Court was attended by many spectators, and defendant and his counsel in spite of the obvious incompetency of such evidence, summoned a large number of witnesses to testify in his behalf as to cures of reputed cancers affected by his treatment, all of which action, and persistence in refusing to give security for his appearance for trial, and his going to jail, was probably as expressed for the purpose of enhancing damages in an

action for malicious prosecution, in his favor, threatened to be brought. It is needless to say, that a verdict in favor of defendant on such ground in such action, would be promptly set aside as not being warranted. That the element of malice is absent entirely in the prosecution of defendant, is manifest to any unprejudiced mind, and apparent, because of the existence of the law and facts proven, and the converse of the proposition would be commended for the reason, that such prosecution is simply duty resting upon every one to endeavor to have the law enforced.

The instructions by the Court to the jury are presented here, and will acquaint readers with the law governing such cases, and were as follows:

FIRST.–"The legislature of this state some years ago provided for the appointment and qualification of a State Board of Medical Registration and Examination, consisting of seven members, and provided for their qualifications and duties. Among other duties it is provided that this board should examine all persons who desire to practice medicine in the state of Kansas, and if they find that such persons possess the necessary skill and learning to be entrusted with the important duty of undertaking to treat the ills and infirmities of the human body, to grant to such persons a certificate authorizing them to practice medicine in this state, which certificate it is provided when recorded with the county clerk of the county in which the applicant practices, shall be evidence that its owner is entitled to practice medicine and surgery in this state."

SECOND.–"The Act creating this board and specifying its duties, further declares that any person who shall after September 1, 1901, practice medicine and surgery in the state of Kansas without having received and recorded the certificate above provided for, or who shall in any other way violate any of the provisions of this act, shall be deemed guilty of a misdemeanor."

THIRD.–"The defendant in this case is charged with a violation of that law. The charge is by information filed by the county attorney of this county, and is in three counts. By the first count it is charged that the defendant did in this county, about the first day of May, 1906, prescribe and recommend for a fee, drugs and medicines for the cure and relief of bodily infirmity of another person, namely, Florence McNutt. By the second count it is charged that the defendant, did in this county, on or about May 1, 1906, prescribe and recommend for a fee, drugs and medicines for the cure and relief of bodily infirmity and disease of another person, namely, Margaret J. Stewart; and by the third count it is charged that in this county, on or about May 1, 1906, the defendant did for a fee, prescribe and recommend drugs and medicines, for the cure and relief of bodily infirmity and disease of another person, namely, Dan. Ross. And in each of said counts it is charged that at the time and times when it is alleged, that the defendant did thus practice medicine. He did so without having received and had recorded a certificate issued to him by the Board of Medical Registration and Examination, as provided in the law above referred to."

FOURTH.–"The defendant having entered a plea of not guilty, the burden to establish his guilt, is upon the state, and before you would be warranted in finding the defendant guilty of the offense charged, you must find from the evidence beyond a reasonable doubt, that in this county, at or about the time charged, and within two years next prior to the filing of the information, the defendant did practice medicine and

surgery as charged in said count or counts respectively, without having received and had recorded a certificate issued to him by the said State Board of Registration and Examination, as provided in the law heretofore explained, and as charged in the information. But if you shall find from the evidence beyond a reasonable doubt, that the defendant did so practice medicine and surgery without having such certificate, then it is your duty to convict him, as charged in such of the counts of the information as you shall so find him guilty."

FIFTH.—"One of the important questions for you to determine in this case will be, did the defendant practice medicine and surgery as charged, and to assist you in determining whether he did or not, you are advised that any person shall be regarded as "practicing medicine and surgery," within the meaning of this law, who shall prescribe or who shall recommend for a fee for like use any drug or medicine, or perform any surgical operation of whatever nature for the cure or relief of any wounds, fractures or bodily injury, infirmity or disease of another person."

SIXTH.—"A drug is any animal, vegetable or mineral substance used in the composition of medicines, and medicine may be defined as any substance administered in the treatment of disease; a remedial agent, a remedy."

SEVENTH.—"By the same legislative act that created this Board of Medical Registration, it is further provided that nothing in this act shall apply to the administration of domestic medicines nor to prohibit gratuitous services. The term, "domestic medicines" as used in this law, means medicine as practiced by unprofessional persons in their own families or household, and "gratuitous services," means services rendered gratuitously, free, without charge."

EIGHTH.—"If you find from the evidence beyond a reasonable doubt, that the defendant practiced medicine and surgery within the meaning of this law herein defined, and as charged in any one or more of the counts of the information, then, and in that event, the fact, if it be a fact, that the medicines prescribed or furnished by him to his patients did some good, or wrought some cure, would be no defence in this case, as the question whether he is competent to practice medicine or not, is a question to be determined by the Board of Registration and Examination, and not by the court and jury. Neither would it make any difference as to where the medicines or remedies came from, for what purpose or where they were compounded, the sole question for this jury being, Did the defendant practice medicine as herein defined and as charged in the information. If he did, then it is the duty of this jury to convict him; if he did not, or if the jury have a reasonable doubt as to whether he did or not, then it is the duty of the jury to acquit him.

NINTH.—I have said to you, gentlemen, that the burden of the proof is upon the state to convince you beyond a reasonable doubt of the truth of the charge of the information. I have this to say further upon that subject however. You will observe that in the information it is charged, that the defendant was not at the time it is alleged he practiced medicine, a commissioned medical officer of the United States Army, Navy or Marine service in the discharge of his official duty, and was not at the time a physician or surgeon called from another state or territory in consultation with a licensed physician of this state, or to treat a particular case in conjunction with a licensed practitioner of this state. And was not then and there a graduate of any chartered medical institution of the United States or any foreign country in good standing, as determined by said state board, and who did not either personally or by proxy furnish the said state board an affidavit stating the period during which, or the place at which he had been engaged in the practice of medicine in the State of Kansas during the seven years prior to the first day of March 1901, and who then and there had not been

engaged in the practice of medicine during said seven years in the state of Kansas, and who had not presented himself before said state board for examination, and who had never applied to said state board at any legal meeting or at any other time for a license to practice medicine in Kansas, and had never tendered or presented to said state board any certificate or the board of examination and registration of any other state or territory or the United States or of any foreign country whose standard of qualifications or practice are equivalent to those of this state, or of his qualifications to practice medicine within the state of Kansas issued by said board. Concerning the proof of such allegations, the burden is upon the defendant.

TENTH.—The defendant is presumed to be innocent until his guilt is established by competent testimony beyond a reasonable doubt, and this presumption extends to every fact, element and ingredient of the offense charged; and if upon the whole evidence carefully weighed and considered, you have a reasonable doubt as to his guilt be must be acquitted. Or if you have a reasonable doubt as to his guilt as to any one or more of the counts of the information, then it will be your duty to acquit him as to such count or counts concerning which you entertain such reasonable doubt.

ELEVENTH.—You, gentlemen are the exclusive judges of all questions of fact of the weight of the testimony and the credibility of the witnesses. You should determine the issues submitted to you in this case upon the evidence you have heard from the witnesses, and the law as I have undertaken to give it to you here. With the wisdom of the law, neither you or I have aught to do. I shall have done my full duty when I shall have correctly interpreted the law, and you shall have done your full duty when you have passed an unbiased judgment upon the facts as shown to you by the sworn testimony."

During the trial many exceptions were taken by counsel for defendant to the rulings of the Court in the admission of testimony, and the refusal of the Court to admit evidence of witnesses of defendant as to his claimed successful treatment of patients. His counsel also excepted to each of the instructions given by the Court, and persistently dwelt on their understanding of the practice of "domestic medicine," until the patience of the Court during the argument was exhausted. The jury retired for only a short time, and returned a verdict, finding the defendant guilty upon the first two counts in the information.

A motion for a new trial embracing some twenty-three grounds was filed by counsel of defendant, and urgently argued, and this was overruled by Judge Smart in an elaborate and comprehensive opinion, citing many authorities, sustaining the law, and the definitions used by him in his instructions to the jury which appear as above given, and to this the defendant likewise excepted and obtained leave to make a case for the Supreme Court. The Court then sentenced the defendant to pay a fine of $50.00 and costs of suit, and to stand committed until fine and costs were paid.

This communication may seem somewhat prolix, but in view of the magnitude of the credulity abroad concerning the treatment of disease the publication of these proceedings is justified, and will promote the education of the masses to a better realization of, and the moral effect

of the enforcement of the law, and prompt on the part of the medical profession the abandonment of the lax attention hitherto exercised in preventing the abuses which endanger the health and welfare of the public.

Since the passage of the law establishing the State Board of Registration and Examination in Kansas, the Supreme Court of the state have affirmed the constitutionality of the Act, both as the regards the fundamental law of the state, and also the Constitution of the United States. These cases are:

The State of Kansas-vs-Wilcox, 64, Kansas reports. 789.

Meffert-vs-State Board of Registration and Examination, 66, Kansas. 710.

It is proper to add, considering the singularly lucid and able charge to the jury in the Huff case delivered by Judge Smart, it will not be reversed.

The end of the patients—The Ottawa Evening Herald for October 22, 1906, has the following notes regarding "Dr." Hutt's patients.

Mrs. M. L. Stewart of the country southeast of town, who was taken to a Kansas City hospital for treatment for cancer some weeks ago, has returned apparently cured.

Florence McNutt died Saturday evening at the home of her father, G. W. Cartzdafner, four miles southeast of town after a long illness with cancer. Mrs. McNutt was thirty-five years old and leaves a husband and four children. The husband is an inmate of the Osawatomie asylum. The funeral was held this morning from the Elm Grove church and the services were conducted by Rev. C. I. Rose, of the North Ottawa M. E church. Burial was at Ruhamah. Mrs. McNutt was one of three patients of the cancer doctor, Joseph Huff, and testimony in regard to her case was introduced into the trial of the Huff case. Huff treated her up to the time of his arrest, and then on account of the proceeding against him, stopped.

THE QUESTIONS OF LIFE INSURANCE EXAMINATION FEES.

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In the September number of the "Fraternal Aid," the journal representing the Fraternal Aid association, and a very well edited publication, appears an article entitled, "Educate Medical Examiners." It is copied from the "Western Review." The article goes on to say that at a meeting in Boston of physicians who examine for life insurance companies the question of raising the fees for the same was under discussion.

The Editor of the "Review" comments on the matter in something like the following strain: Since the records of mortality in life insurance

show that there are many who die soon after being insured from diseases which they must have had at the time of insurance, it would be better for the doctors to do better work, before they ask for an increase in compensation for the same, and then goes on to enumerate the qualifications which an examiner for life insurance should have. He says, "they should be in possession of the requisite information concerning heredity, environment, habits, weight, height, as well as the healthfulness of the applicant himself."

The fraternal associations pay one dollar for an examination, and they constantly impress it upon the physician that they demand and expect his most skilful, most careful, and most painstaking services.

Now let us see what the insurance people get for this little one dollar. First, they get the time and services of a man who has spent from four to ten years in preparing for his profession, also the benefit of the skill and judgment which he has acquired from years of practice, study and observation. I have just looked over the examination blank of a fraternal insurance company, and it is about the same as all of them. I have counted the questions asked in this blank and find 196 questions which must be answered more or less fully. And what is included in these questions? Among the most important are examinations of the lungs, heart, and urine. Let us see what this means. Every doctor who knows enough to know anything about it, also knows that an accurate and reliable examination of the lungs draws heavily upon the skill, knowledge and experience of the doctor, and often it should be fortified by a microscopic examination. Thousands of times ordinarily intelligent patrons pay from $5.00 to $15.00 for such an examination, and rightly consider it not too much. A careful and reliable examination of the urine is not a matter of a few moments. The writer lately had a patient who had all the symptoms of Bright's disease, except albumen and casts. By this I mean that the usual examination by heat, acid and the microscope failed to show other symptoms, until after the most delicate and painstaking tests, both chemical and microscopic had been made, and not until hours had been spent in repeated examinations.

But let us lay aside all the requirements upon professional skill and responsibility. Let us carry this blank to the office of a busy notary or any other non-professional man of any intelligence, whose time is worth anything, and will he write the answers to these 196 questions, even after he has been instructed as to what to say, for less than one dollar, and would any reasonable person consider such a compensation too much?

This question of a fair compensation to the doctors is a very vital one to life insurance companies. It is not a question of vital importance

to the doctor. The life of the companies depends upon the reliability of the doctor's examinations,and poor work of the doctors representing any company will put that company our of business in a very few years. I say it is not of vital importance to the doctors. Life insurance companies are usually wise enough to seek for their examiners, men who have the skill to command a good practice. Such men can easily live without life insurance examination fees, and especially such unreasonable ones as are now paid. So the question becomes one for the companies to settle for their own benefit, and not for that of the doctors. The doctors will give all they are paid for, and should not give more.

As the matter now stands the policy holders should insist upon a fair compensation. They have been and are now paying heavily because it is not done, and many times more than an increased fee would amount to.

Some ten years ago the writer took the pains to look up for three months the average time during which deceased policy holders in a certain good fraternal order, had belonged to the order, and it averaged less than three and one-half years. Now, the reader will say that the doctors are to be blamed for this. That is apparently so. And why is it so? It is because some doctors have refused to expend the skill necessary to detect lung, heart and kidney lesions and add to it the the time and labor necessary to fill out the unreasonably long examination blanks. But really are the doctors to blame? In the first place the companies are violating that great law upon which all commerce is founded; namely, compensation for value received. No sane man will claim that one dollar is a fair compensation for a good examination. It is however, a fair compensation for a poor examination, and if the companies get what they pay for,what reason have they for complaint. The fact of the matter is that every time the companies receive a first rate examination for the fees that were paid, they defraud the doctor of the difference between an unfair and a fair fee.

They may complain that it is understood when the doctor undertakes to do the work that the work shall be first-class. Suppose it is so understood. If the company is dishonorable enough to encourage unfair dealing by initiating it, how can it complain if its example is followed?

There are examiners, and I hope the writer is one of them, who in spite of the fact that they feel that they are being imposed upon, still do good work. But it is too much to expect this of a majority of men from any walk in life. The companies are getting more than they pay for, and can with poor graee make complaint.

The time is coming when this injustice will be discontinued,. Not

because the doctors insist upon it, but because the very existence of life insurance depends upon it.

Lately, the old line companies, in their efforts to correct illegal and in some cases, criminal extravagances, have been unwise enough to reduce the fees for examinations from five to three dollars. The natural result of this step is to drive out of their employ their best men, and to entrust this important work to the hands of less skilful physicians.

CARDIAC INADEQUACY.*

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The term inadequacy, may be applied to any condition of the heart rendering it incomptent to perform the work demanded of it. Inadequacy may result therefore from acute inflammations, from valvular lesions, from muscular degenerations, of various kinds, and from developmental defects. For the purposes of the present discussion the subject will be limited to those cases of cardiac inadequacy which are dependent upon no recognizable organic lesion either of the valves or musculature. Certain chronic and progressive degenerative changes in the cardiac muscle, which are usually associated with similar changes in the arterial walls, may be recognized either by these or by coincident changes in the valvular structure and will therefore not be considered. It is the purpose of this paper rather to suggest the relative importance of nutritional changes in the heart muscle to certain obscure disturbances of the general health: (1) Many of which are described under the head of neurasthenia,and present certain disorders of the nervous system, between which and the cardiac disturbances there is perhaps an interdependence;(2) others are developmental in origin, and in young people mayshow only the evidence of cardiac inadequacy with perhaps dilation of the left ventricle, or in adults may present the nervous disturbances of the former class; (3) then there are those resulting from a retrogade metamorphosis, which may be incident to old age, or which may follow certain changes in habits or manner of living with loss of former stimuli to the localization of nutritive processes.

In studying the first group of cases we must take into account all of the factors which may interfere with perfect nutrition of the cardiac muscle. Prominent among these we find disturbances of digestion, particularly among women afflicted with uterine disorders, which also frequently give rise to functional disturbances of the heart which also interfere with its nutrition. Chronic affections of varions kinds and

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protracted fevers, such as typhoid fever, not only leave the heart in an enfeebled state, but by the subsequent derangment of the digestive functions, hinder its restoration to a normal state of nutrition. Surgical operations for the removal of functionating structures may disturb the equilibrium in both nervous and circulatory mechanisms, and thus for a considerable time, interfere with general as well as cardiac nutrition. Prolonged mental worry or anxiety may play an important part in the evolution of cardiac weakness in both men and women. Persistent high arterial tension is also a factor to be carefully considered whether it be associated with any of the conditions heretofore mentioned or be an expression of some other disturbing element.

Of the second group of cases the greater number are boys and girls between the ages of 12 and 16, and among those who have presented a sudden and very rapid growth in stature. The heart is a slow growing organ, and does not nearly keep pace with the rapid growth of bone so that when the child grows suddenly into manhood or womanhood the heart is too often still a child's heart, and inadequate for the needs of its new environment. While in the majority of such cases a good wholesome diet with a sufficient amount of outdoor exercise soon brings about an adequate development in the cardiac muscle, there are cases in which this favorable outcome is prevented. We frequently find young adults in whom there is a much apparent lack of sympathy of development; in whom there is a sufficiency of height and abundant length of limb, but a lack of thoracic development; in whom there is a narrow chest, an insufficient lung capacity, and an inadequate heart muscle. This interruption in development may be brought about by prolonged unhygienic surroundings; by improper and insufficient food supply; by too close confinement, or insufficient amount of outdoor exercise; by the occurrence, in rapid succession, of the various acute affections to which children are mostly liable; in boys by sexual abuses and in girls by too early marriage, and rapid child bearing. With imperfect development of the thorax and insufficient lung capacity there is always likely to be associated an inadequacy of the cardiac muscle. Since perfect oxygenation of the blood is one of the essentials to perfect nutrition this association may be readily understood.

In the third group of cases there are included those in whom the general retrogade metamorphosis has rendered the heart muscle inadequate to meet the requirements of an active life, but since in the ordinary course of events this is concomitant with other changes which prohibit much activity we are seldom called upon to consider such cases. There are other cases, however, in which degenerative changes occur as a result of changes in occupation or habits of life. When one who has

for many years been accustomed to a particularly active life changes to one of extreme sedentariness there is likely to be a physiologic atrophy of the muscular structures and especially of the cardiac musculature. A heart muscle which has been developed by unusual exercise beyond the ordinary needs will atrophy when the excessive demands have ceased, but in many cases this atrophic process may be excessive, in that the heart muscle is inadequate for ordinary exertions. Thess conditions of extreme cardiac enfeeblement may depend also upoe deposits of fat in and upon the heart muscle, interfering with both ito nutrition and its action.

On account of the interdependence between the nervous disturbances frequently exhibited and digestive disorders; and between both of these and functional disturbances of the heart which may result in an enfeeblement of its muscular structure, it is frequently difficult to determine which is the primary condition. This relation of cause and effect is of less importance than the relation of the cardiac inadequacy to the complexity of symptoms presented; but there are sufficient reasons for believing that the cardiac enfeeblment is the primary condition in many of the cases where the fact cannot be definitely determined.

A great variety of symptom groups are presented in these cases but in all of them there may be noted a line of symptoms indicating a circulatory disturbance of more or less gravity. One of the most certain of these is breathlessness on slight exertion, and this may sometimes be accompanied by faintness or vertigo. Attacks of faintness and vertigo are not uncommon in these conditions; but vertigo is also a symptom of other conditions, and may occur without cardiac enfeeblement. The same may be said of palpitation, though when there is a persistent frequency of the heart's action, inadequacy is indicated. Coldness of the extremities is another usual manifestation of imperfect circulation.

Among the symptoms enumerated by Ranney as commonly occurring in neurasthenia, we maynote the following which frequently also occur as a result of cardiac inadequacy: Pains in the head; fleeting neuralgias; sleeplessness; vertigo; tenderness and pallor of the gums; flushings of the face; idiosyncrasics in regard to food; mental depression and melancholia; defects of memory; a decrease in intellectual capacity; a buzzing or ringing in the ears; specks before the vision; morbid fears of various kinds; sick-headache; weakness of the muscle; numbness in the limbs; an extremely rapid or slow pulse, which fluctuates widely during periods of excitement or fatigue; attacks of palpitation of the heart; sudden startings on going to sleep; frequent gaping, yawning or stretching; and disturbances of digestion. In fact,

these and nearly all of the other symptoms enumerated as occurring in neurasthenia are but various manifestations of weakness. In many of the symptom groups those symptoms pointing directly to cardiac weakness will predominate; but in other groups, those pointing to mental or spinal disturbances will predominate; and it is only by careful examination of the heart that we may may determine its real condition.

The evidences of valvular lesions will be found in many cases presenting the symptoms enumerated. In all such cases the heart is usually recognized as an etiologic element worthy of our attention; but in those cases where no evidence of valvular lesion can be detected, we are too frequently inclined to consider that organ sound, and attribute all its functional disturbances to reflex causes. It is for this reason that the present discussion is limited to the latter class of cases.

Weakness of the cardiac muscle is not always manifested by valvular murmurs; but, on the other hand, the intensity of such murmurs is often diminished by it. The only auscultatory evidence of cardiac enfeeblement will be found in the character of the sounds, but, more particularly the first sound. With a weak heart muscle, the ventricle does not contract so forcibly nor so completely as in the normal state and the first sound is therefore less intense and less prolonged. In most of the cases observed, the arterial tension is low and the aortic second sound is also less intense than normal. The pulmonary second sound usually preserves its normal intensity, but may be exaggerated. I am convinced that the abbreviation of the first sound with a pulse of low tension, especially when associated with the symptoms of circulatory disturbances previously enumerated, is sufficient evidence to direct our attention to the heart in the management of these cases. If the arterial tension is high and the aortic second sound exaggerated it will be well to reduce the tension and again examine the heart. Haemic murmurs may be heard in anaemic cases but these murmurs have no significant relation to the condition under discussion.

In young people belonging to the second group of cases there may be some dilation of the left ventricle which may be determined by an increased area of cardiac dulness and there may be also a murmur due to relative insufficiency of the mitral valve.

In the third group of cases there will be the frequent and irritable pulse with abbreviation of the first sound and the symptoms enumerated as generally occurring in cardiac inadequacy. Dilation of the left ventricle and relative insufficiency of the mitral valve may occur in any of the cases described, but are much more common in young people of the second group.

In the treatment of the first group of cases we are required to determine whether we should depend upon the general treatment for the relief of the cardiac inadequacy or whether we shall recognize this as an important factor in the case, and direct some special treatment toward its relief. While we must admit that with a general improvement in nutrition the cardiac muscle will usually regain its normal state this result may be greatly hastened and in many cases perfected by careful treatment directed to the heart itself. When the enfeeblement is unusually marked, and especially when the heart action is rapid, digitalis or strophanthus should be adminstered in small doses and for a short period of time. A marked amelioration of many of the symptoms will be obtained under its influence. Except in cases where there is extremely low arterial tension these drugs should be combined with nitroglycerin.

As in the case with other muscles of the body, the cardiac muscle is more quickly and more perfectly developed by exercise than by any form of medication. The muscles of the arm when called upon for efforts to which they are unaccustomed soon fatigue; and if work very greatly in excess of that to which they are accustomed be demanded of them, they fail. If these muscles however are subjected, at regular intervals, to gradually increasing demands they soon become able to accomplish the maximum efforts required with little or no fatigue. If the general nutrition be good, development of the muscles will keep pace with a rapid increase in the exercise,; but if the nutrition be poor, then the development will keep pace with a progressive increase in the exercises pari passu with the improvement in general nutrition. This is true of the cardiac muscle, except that its condition bears a closer relation to nutritive processes; and it seems in many cases that the improvement in nutrition progresses pari passu with the development of the heart.

In most cases it is best to begin with very gentle exercises, preferably with resisted movements. At first only a few movements should be attempted, and the exercise continued only for a short time. In any case as soon as respiration is quickened or the pulse much accelerated the exercise for that time should cease. The number of the movements and the duration of the exercise may be increased gradually; but it will always be best to stop when evidences of fatigue appear.

In connection with these resisted movements I have found respiratory gymnastics of considerable benefit. The patient is required to take a deep inspiration and then the thorax is forcibly compressed during expiration, this being repeated several times at each exercise period. By this process the air in the lungs is more perfectly changed and the amount of oxygen increased; and furthermore, by frequent repetition of

this exercise, the respiratory capacity becomes considerably greater.

As soon as he is able to do so without much fatigue, the patient should take a brisk walk out of doors every day; but the resisted movements should be continued until there is no marked disturbance in the heart's action or in respiration by these exercises. At such time regular exercises with dumb-bells or Indian clubs may be substituted for the resisted movements.

In boys and girls of the second group, and in cases of the third group, where the degree of inadequacy is moderate, outdoor exercise and dumb-bell exercises may be advised at the beginning; but cases of the first group, adults of the second group, and extreme cases of the third group, will respond more satisfactorily at first to resisted movements.

It is not intended that this special treatment shall replace all other treatment. The indications in each case must be met with appropriate medication, but in the classes of cases mentioned, the results of general treatment will be more rapid and more certain if combined with the method suggested. General tonics are usually indicated; regulations of diet and aids to digestion may sometimes be required; sedatives and soporifics may be necessary at first; but with plenty of outdoor exercise in connection with the course recommended, many of the indications for medication will be eliminated.

DISCUSSION.

DR. LOWDERMILK: It seems to me that the doctor has presented a class of cases that we meet with perhaps more frequently than we suspect,—a class of cases which, in my opinion are frequently overlooked by the general practitioner who has not the opportunity to study his patients as carefully as the essayist has.

I was particularly impressed with the nervous relation the essayist brought out in the first part of his paper, and it seems to me that he makes the point very strongly that a certain class of troubles which we are prone to regard as being nervous are dependent upon cardiac inadequacy itself. The trouble emanating from the heart is mechanical rather than any fault of innervation of the heart itself.

DR. MCVEY: I have tried to a little more strongly impress upon your minds the fact that an existence of a valvular trouble is not necessary to some nervous trouble lying in the heart. In a great many cases I think these point to a muscular trouble rather than functional disturbances. In a great many cases the fault will be found in the muscle itself. I wanted to bring out a little more forcibly the importance of the heart muscle independent of the valvular lesions.

PREVENTION AND TREATMENT OF PUERPERAL SEPSIS.*

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The consideration of this subject naturally resolves itself into two divisions: (1) Prophylaxis and (2) Curative.

The keynote of prophylaxis in obstetrical work is asepsis, but other important elements enter into the question even though they are of secondary moment. The pregnant woman must be instructed in hygiene, dietetics, exercise, bathing, etc., in order to prepare her for the coming drain upon her strength and resistance. Careful inquiry should be made into her history for any previous infections or pel vic diseases that may affect her labor, or any abnormality of the birth tract. Careful measurements of the pelvis should be taken and an effort made to correct a faulty position of the foetus. This will obviate the necessity of an examination for this purpose after labor has begun. Any acute or chronic skin disease should be treated, and if there is or has been any vulvitis, vaginitis, cervical erosions or leucorrheal discharge, treatment should not be left to the patient, but her physician should see that it is cured, or if cure is impossible, nothing short of the best possible result obtainable should satisfy him.

It is true that a number of different bacteria are found in the birth tract, and that these are not pathogenic under ordinary circumstances. It is also true that the natural secretions of the birth tract are inhibitive to the growth and spread of these bacteria, but it is equally true that its vitality is lowered and these secretions are less protective in the presence of abrasions, contusions, and the traumata incident to birth. A more favorable soil is thus furnished for the growth and increase of virulence of these germs especially when a mixed infection is produced by the introduction of germs from the outside.

The patient should be instructed to keep the vulva and perineum thoroughly cleansed and in the presence of leucorrhea or vaginitis antiseptic douches should be prescribed with careful instructions to use only aseptic douche points. Of what value is a douche when the point is covered with dust or taken from a box containing rectal points placed there after the last enema was taken? If the patient has had gonorrhea or ulcers of the vaginal tract or cervix, a speculum should be used to explore the folds of the vaginal wall and the cervix and suspicious spots be treated. Unless directly indicated a douche should not be given for

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a few days prior to confinement, and if indicated it should be given by the nurse or physician himself with the greatest care.

With the advent of labor the bowels should be thoroughly emptied by a copious enema of soapsuds which may be repeated if the labor is long. A full bath should be taken with special care in cleansing the lower abdomen, vulva, perineum, and thighs. The nurse should, before labor is far advanced or before any examination is made, further cleanse the pubes, vulva and perineum with soap and water and then use some antiseptic solution, after which the patient should wear a pad saturated with an antiseptic. This should be changed from time to time during the labor. (If the lying in-room has been occupied by a pus case or infectious disease, it should be thoroughly cleansed and fumigated) The bed should have freshly laundered linen and before delivery a sterile sheet should be placed over the patient. The nurse should have an abundance of sterile towels, sheets and dressings for use during labor and the puerperium.

Puerperal infection is wound infection and the rules for hand dis infection and asepsis observed in the operating room should be as rigidly enforced in the lying-in chamber. In short, every precaution that would be taken before a major surgical operation should be taken in preparation for a confinement case, and during the lying-in period.

Generally speaking, far too many internal examinations are made. With study and a little practice the accoucheur can tell the presentation, whether the head is engaged and the degree of advancement. Each time an internal examination is made, the danger of infection is increased one hundred fold. If the physician has already measured the pelvis-and he should have done this weeks before labor-an internal examination will seldom be necessary. Before the examination is made, the vulva should be sponged with some antiseptic solution, taking care to sponge from the labia down over the perineum toward the anus. Then by carefully separating the labia with the thumb and finger, the examining fingers can be introduced with but little danger of contamination. After measuring the pelvic diameters, and diagnosing the position, no further internal examinations or manipulations should be made unless artificial delivery is necessary. While waiting for the delivery of the child the physician should exercise great care not to re-infect his hands. It is as necessary to keep the hands clean as it is to scrub them originally. By the use of rubber gloves greater safety can be assured the patient, for these can be placed in an antiseptic solution and kept ready for instant use.

If an instrumental delivery is necessary, the patient must be washed from the umbilicus to the knees and then covered with sterile towels or

sheets in such manner that the vulva alone is exposed. A frequent source of trouble is the Kelly pad. It should be covered by a sterile towel after thorough disinfection. If the bed sags toward the middle, boards should be placed beneath the mattress to prevent the collection of blood, amniotic fluids, and any fecal matter that may be forced from the bowel. Such a collection of fluids could easily be aspirated into the patulous birth canal after the birth of the child. The frequent presence of bacillus coli communis in the lochia of cases of sepsis certainly show this to have taken place.

Before examining the vagina for lacerations the hands should again be thoroughly disinfected, so that no germs will be introduced on the torn, bleeding surfaces and open blood vessels. It is now generally taught that fresh lacerations of the cervix should not be repaired unless we have intractable bleeding. Immediate repair of lacerations of the vagina, however, lessen the wound surfaces and thus the possible chances of infection. While waiting for the delivery of the placenta, sutures may be placed in any vaginal tears with forceps on the ends ready to tie as soon as it is delivered. This will lessen the tendency toward too great haste in delivering the placenta. If any considerable part of the placenta or membranes are found missing they should be removed at once. The finger is all that is necessary for this, and gives us the only assurance of not penetrating the uterine wall. By digital touch we can satisfy ourselves of the condition of the uterine cavity. After the uterus is emptied small doses of ergot are beneficial as a prophylactic in that they maintain proper tone in the uterine walls and promote involution, thus favoring the closure of the blood vessels and lymphatic spaces. When these remain open they soon become filled with blood clots, and in the presence of infection form an ideal channel for its spread to the periuterine structures and the establishment of peritonitis and phlebitis of the uterine and pelvic vessels. After the blood spaces and walls of the uterus become infected, ergot is still indicated but it has not such beneficial action. Douches should not be given after delivery unless strongly indicated and then only by the physician.

When called upon to treat a case of puerperal infection, or when we are unfortunate enough to have one in our own practice, the first thing necessary is to determine the site of infection, second, the character. The amount and character of the lochia and the condition of the uterus,—size, tenderness, etc., together with the general condition of the patient will enable us to judge quite accurately whether the infection is in vaginal tears, or whether the uterus is the site of the trouble. If the injuries to the vaginal wall and perineum are the site of infection, these should be thoroughly cleansed and antiseptics applied and every effort

made to prevent an ascending infection from reaching the uterus. Cultures should be made for bacteriologic diagnosis of kind of infection. If pus comes from around any of the sutures these should be removed to afford free drainage. If sufficient evidence is not found in the vagina to account for the symptoms and the lochia point to a uterine infection, the cervix and uterus should next be examined by means of a speculum. If streptococci are present, a gray membrane will be found on the cervix extending up into its canal and uterus. Cultures should be made from this and the uterine cavity under the most rigid precautions lest the infection become mixed.

If sure that the infection has not reached the uterus this should not be explored. If we are sure none of the placenta or decidua were left in the uterus,—and we should be if we confined the case,—a sapraemia can reasonably be ruled out. Cleanse the vagina thoroughly and irrigate it, taking care that none of the debris or fluids enter the uterus and keep the wounded surfaces in the best possible condition with frequent cleansing and stimulating antiseptics. If retained placenta or membranes are suspected, remove these with the finger and that alone, and explore the uterine cavity for shreds and infected clots. If shred and small bits of placenta cannot be removed by finger, a piece of gauze wrapped over it often times is of great service. A sharp curette should never be used in an infected uterus. Some advocate swabbing the uterus out with tr. iodine, others with strong biniodide of mercury solution. An aqueous solution of iodine of 1% or 2% strength is strongly antiseptic and has not the caustic effect of the tincture. Copious decinormal salt or bichloride of mercury (1–2000) solutions should be next nsed as an intrauterine douche. Some favor packing the uterus with gauze saturated with alcohol, others use iodoform gauze. This should not be left in the uterus longer than six hours lest it cease to act as a drain and do absolute harm. The hot douches may be repeated once daily if necessary to maintain uterine tone and remove the accumulated discharges. A number of cases of mercurialism–some of them fatal—have been reported from too frequent use of a strong solution of mercurial salts in the uterus. The infection has already gone beyond the reach of antiseptics applied to the inner surface of the uterus, so that all the intrauterine douche can do is to is to cleanse the interior of any debris and help restore tone to the lax walls.

If fluctuations can be detected in the uterine wall and we have reason to suspect a periuterine abcess, this should be incised and drained. If we detect pus in the cul-de-sac of Douglas it should be drained.

Ice placed over the lower abdomen may help to prevent a periuterine inflammation becoming a general peritonitis. Thrombosis and

phlebitis of the uterine and pelvic vessels and lymphatics may be followed by phlegmasia alba dolens. Removal of these thrombi whether infected or not has never given results sufficient to justify exposing a desperately ill patient to the shock incident to so severe an operation.

Hysterectomy has been disappointing as a curative or life saving procedure; the accompanying septicaemia is usually of such severity thatvery few cases have withstood the addition of so severe a shock and these would probably have recovered without hysterectomy. Pinard says that he has never seen a postmortem that showed a condition that hysterectomy would have benefited or saved the patient.

If bacteriologic examinations show presence of streptococci in either lochia or blood, the antistreptococcic serum will be of benefit. This should be given in doses of 20 cc. and repeat three times in 24 hours. It is useless in any other infection.

As to internal medication, it should be supportive,–strychnine, quinine and whiskey are of value only in this way. Antipyretics are harmful and should not be countenanced. Baths should be used for hyperthermia and every effort made to keep the skin and kidneys in the best possible condition. Alkaline diuretics will be indicated if the urine becomes scanty and of high specific gravity. Ergot should be given regularly to promote involution and maintain tone in the lax uterine walls. Decinormal saline solution in the bowel, hypodermically or intravenously according to the severity of the case, gives excellent results and at times will turn the balance in favor of the patient.

In short, everything possible to conserve the patient's strength should be done and be on guard not to wear her out by meddlesome attentions.

DISCUSSION.

DR. LOBDELL: The first thing I have to do is to thank the doctor for every word he has said. He has so thoroughly covered the ground that there is nothing to be said more than to make it cheerful for the young physician who settles in a country place where he is called to a little hut where there is not a clean thing in the place. I am satisfied that in ninety-nine cases out of a hundred of puerperal fever the infection is carried by the doctor herself. Of course I expected to discuss the paper on erysipelas with reference to this, but I have not heard the paper. I can only say that I am thoroughly satisfied that there is nothing more dangerous than for a doctor to attend erysipelas and then attend to a puerperal case. Do not attend a puerperal case for a long time after. One doctor found germs ten days after, and found that pure carbolic acid is the only thing that would remove them. I never made it a practice to attend obstetric cases and erysipelas at the same time. The ersyipelas will become puerperal fever in a lying-in woman. We have many cases where a pregnant woman is exposed but she is no more liable to take the disease than any one else. Unless she tears it is no more dangerous than any other. One who attends a case of puerperal fever would better attend no more cases of obstetrics. He had better go hunting, fishing, or some-

thing, for a long time. I am satisfied that we carry around infection more times than any one else does, so that we cannot be too careful. Of course there has to be an entrance, an open door for the entrance of the germ, and that is furnished by the bleeding genital tract.

DR. BLASDEL: This paper represents ideal conditions, and the ideal conditions are what we want, but in doing a general practice we cannot encounter and we cannot produce the ideal. If we have our cases in charge, and absolutely control them, we can prevent ninety-nine out of a hundred cases of puerperal infection. But we do know that we have cases that are beyond our control. Suppose a case for instance, where we have an ulceration; we haven't seen the patient, and she is in labor. It is not a normal condition, but our patient is not sick. Suppose we have a case with bacteria and we have some internal source of infection. In doing a general practice, especially country practice, we are called out to attend cases of confinement where we do not see the patients until they are in actual labor-probably just about delivered when we get there. The surroundings are dirty, we go to work and sterilize our hands and the patient as promptly as we can. We go back to town, and make a second visit on the second day, and we hear nothing more from that patient until they send for us. She has got a headache, possibly a chill, and we go out and we find infection. In hospital cases that we can see every day we can go right to work. I notice the lack of one thing in the paper that was read was the alcoholic stimulation. I have tried that and it seem to have given beneficial results. I do not know whether the patients would have gotten well as quickly if I had not used it or not, but they did nicely. There was another point the essayist brought out; that is the continual douching should be avoided. I know the old text-books say douche out the parts, douche out the vagina. That should be avoided. If there is any infection it should be avoided, because the infection is beyond any reach of local treatment.

DR. KENNEY: The essayist has probably said the last word on the subject of treatment, but there is one point I would like also to emphasize, and that is the matter of douching. I have been fortunate enough to have had only one case of infection. Singularly enough that was one of the ideal cases. It was a case under observation and treatment for a month previous to labor. There was sterilization of practically everything in the house. The sheets were sterilized; the nurse was supposed to be absolutely clean in all her methods; she was a woman who was reputed to be exceptionally good; she had her patient absolutely clean; it had been done for some hours before the labor took place. The patient was thirty-five years of age, and there was a certain amount of rigidity of the perineum which necessitated the use of forceps. There was some laceration, which apparently healed up after being sutured. About four days after delivery a slight temperature appeared. Within twenty-four hours from that time the temperature was 104° or 105°. The nurse had been cautioned about not douching the vagina. The vaginal douching had been at minimum. The first twelve hours there had been vaginal douching, but it was along about the fourth day, as I say, when the infection first appeared. I questioned her very carefully; she said there had been no douche whatever used; nothing that could apparently have produced infection. I learned, after the recovery of the patient, that the nurse had used a douche and it was possible that her douche bag had not been clean. Here infection took place and for nearly two weeks her life hung by a very slender thread.

DR. MITCHELL: I think there should not be any particular danger of septic infection where the physician uses the necessary care in cleansing his hands, and the patient, so far as possible. I endorse the remarks about vaginal douches, particularly to lying-in women. Take a case of gonorrheal infection; there should be the utmost care in douching—antiseptic douches, cleansing the parts, leaving no germs in the part

that may cause infection. There cannot be too much care in reference to a thorough examination-specular examination in regard to the cleansing of the parts in order to prevent septic infection. Often great harm has been done by vaginal douching. I want to advise that a critical examination of the parts of the woman should be made to ascertain whether there is any previous infection, or gonorrhea, or anything of that sort.

Now in regard to the cleansing of the external parts of a woman, we cannot be too careful. They should be thoroughly douched except where they are washed with alcohol, and the physician's hands should be thoroughly disinfected.

You cannot accede to the remark that the obstetrician should abstain from such cases for a certain length of time, weeks, and months perhaps, to guard against septic infection from his hands. I was called to attend a case of small pox in a woman; she was about four months gone. She was having a miscarriage. The foetus had been expelled, when I was called, the placenta was retained. Hemorrhage had set in. I cleansed my hands, and inserted my hand in the vagina and removed the placenta. In about two days I attended a case of confinement. I did not communicate small pox there. In another case I attended a case of erysipelas in a woman who was almost in confinement. In about the second or third day after I was first called the labor set in. I used the ordinary means to disinfect my hands, and kept her on the erysipelas treatment and she was carried through safely and she did not have puerperal sepsis either. I think if we use strict disinfection of our hands, even in the country we can guard against puerperal sepsis.

Dr. Lowdermilk: I would like to call attention to one matter in connection with this. It is suggested to me by reason of a very unfortunate experience I have been through in the last two weeks. I was called in to see a child four days old. I found it suffering from peritonitis. I was lost to understand the cause of the trouble until about four days later the umbilicus opened; had very profuse hemorrhage and sloughing, and considerable amount of tissue sloughed out, and a hemorrhage that was very difficult to control set in, and in about three days later from that time septic pneumonia developed and the child died.

To me it seems to be a typical case of cord infection. While we are carrying out these measures of aespsis to guard the mother, let us not forget the child.

Dr. Taylor: The paper, in my judgement, is excellent so far as the hospital is concerned, but the country physician is seldom engaged until he sees the case, and he hardly ever has a trained nurse. Usually the old ladies are there looking after the patient. When the doctor goes there the woman possibly is in labor, having pains pretty severely. I don't remember hearing the paper speak of the movement of the bowels, cleaning them out. I think after a doctor gets such a case, after he makes an examination, if he finds the bowels loaded he should give an enema, and let them have a tendency to ease the labor. I also think sometimes the infection, in a great many cases, is due to blood clots under the sore surface, and a douche is very necessary. I have of late years been using quinine instead of ergot, and get the very best results. After my patient is confined, in about eight or ten hours, I think it wise to use the old treatment of turpentine and castor oil. I think that it takes the soreness out of the bowels. I also give doses of quinine.

Dr. Yates: There is one thing that has not been called attention to, I believe. One of the most important traits of a good obstetrician is inactivity preceding the case. He is there largely as a watchman, to be called into activity when the case becomes abnormal, if it does, and it usually does not. It is a little difficult for a man to sit around the lying-in chamber and do nothing. It is the most difficult thing he has to do, but nevertheless in most cases it is the best thing to do. Most of us exaggerate our import-

ance. I believe the most of our troubles are caused by pernicious interference If we have any doubt whatever about our hands—doctors in general practice will have to cut out the general practice of obsetrics if we listen to the remarks that have been made But we can find out almost everything we have to do by external examination. The pelvimeter will tell us everything we need to know. That is something we always ought to use. The location of the foetal heart beat, the location of the head, and the back and the buttocks, will often give us all we need to know of the child. So that if we are at all in doubt we better make an external examination, and do a lot of heavy sitting around. The child will probably be born just as quickly, and there will be much less infection

Dr. Mitchell: I think often times in preparation before confinement, on the part of the physician, antiseptics are a delusion and a snare. There are very few surgeons I think today who are using antiseptics in preparing their hands. They use fifteen or twenty or twenty-five minutes with soap, water, and brush. Very often the doctors in smaller towns have to handle erysipelas cases, and must necessarily follow up a confinement of a woman. They will take the usual bichloride of mercury, one to one thousandth, dip their hands in it and feel they are safe, when the facts are bichloride on the skin acts as an astringent, and the germs will remain on the hands, and there's where you get your infection. If you leave off the bichloride until you get through with your scrubbing you will get better results. If a person is attending in an erysipelas case he should change his clothes and take a bath; especially his hair.

Some writer, some ten or fifteen years ago, reported a physician in one of the eastern cities who had some fifty or sixty cases of puerperal fever. It seemed as though everywhere he went he had puerperal fever, until it finally killed his practice, and he had to leave. That was explained at that time as due to streptococci that could not be gotten rid of. There is no reason why it cannot be gotten away with the same as any other germ.

Dr. Gray: Where a person is engaged in general practice of course I believe his hands are bound to be more or less soiled and I also believe it is an impossibility for him, after they are soiled, by these septic germs, especially germs such as erysipelas, to cleanse those hands by any means at our disposal today. I am inclined to think that the average physician counld get along better if he did not rely upon antiseptics at all. I believe the rubber glove is a very excellent means of preventing the carrying of infection. However, I would not rely upon antiseptics to disinfect the gloves. Boil them. Put them in boiling water for four or five minutes. They should also be examined every time they are used, and often the first time, for punctures. Of course where the rubber glove is put on upon the unclean hand, my observation is if there happens to be a puncture you are more apt to do more harm than good. So it is necessary to see that your glove is sound, and it is more important to see that the glove is kept aseptic after you have it on your hand.

There is one point in the paper to which I would take exception, and that is the practice of introducing the finger upon a suspicion of particles of placenta, or membrane, being retained in the uterus. If the case has been conducted in an aseptic manner, and there are some small particles of the placental tissue no certain rule will expel them, they will do no harm. The main point is to keep the parts free from infection. I do not believe anybody can tell whether or not there might be small parts of the placenta remaining behind, but we do know if the uterus remains aseptic that part of the placenta does no harm, and in the course of a few hours would be expelled in the natural way.

Dr. Trusler: It seems to me there are two or three points that are very pertinent that have been missed in this discussion. There is no trouble, I take it, whatever so long as you keep out of the uterus. You can use almost any kind of septic material

in the vagina and get along most any way, and in the majority of cases you will escape trouble as long as you keep out of the uterus. The great trouble arises, I think, oftener than otherwise in the hurry in delivering the placenta, that the physician places the index finger in the cervix, takes hold of the placenta, and by that means carries septic matter into the uterus. If he keeps his finger out of the uterus there will be very little trouble of the kind. The parts should be pretty well protected, and so long as we do away with douching we are pretty safe unless we carry in something on our hands. Instead of using the glove it is much easier and more easily done to use some collodion, especially on the index finger, and any part that is to go inside of the uterus. It soon dries and covers up any material that may have been left on our hands of a septic nature. Of course if we can take the time to make our hands aseptic, which we cannot always do, we shall have no trouble; but if we are the only one in attendance on the case our hands become septic, we cannot sterilize them completely, and under the circumstances I think collodion better than the glove.

DR. CLARK: I am sorry that the impression seems to have gotten out among the men that these were ideal conditions, and conditions that obtain only in hospitals. They are ideal conditions, but the line of treatment I have carried out should be carried out in every case whether you have a nurse or not. Of obstetric confinements the majority of them I have had have been in the hospital. All these but ten or fifteen were charity patients, made up of the riff-raff from the slums of Chicago, and the advantage of having them in the hospital was offset by the character of the patients. These conditions can be carried out whether you are in the country or in the town, This thing of making excuse for lack of technique because you are a country doctor is only a slip shod method of trying to shift the blame off onto somebody else. The country woman, as a rule, is a big strong woman. If you haven't had time to disinfect your hands before you get to the case it is very seldom they have not got boiling water you can put your hands into for a minute. I believe every man should have an obstetrical bag and use that for obstetrics and that alone. The price of one or two confinement cases will buy a complete obstetrical outfit and do away with lots of trouble. A woman can be confined on a doorstep or right on the sidewalk or right on the floor if you are careful and leave her alone and do not use your dirty hands in the vagina or vulva. Every man ought to have at least four towels in his grip, that are sterilized. It is an easy matter to take a sterilized towel in each hand and use the surfaces that touch his hands and not infect the wound.

A great many of us get into serious trouble because we have been worshipping at the shrine of antiseptics. It is a snare. Too many of us because we have as a rule, a general run of good luck swell up and rear back on our dignity and good looks, and the first thing we know we have two or three virulent cases and lose some of our patients. Sometimes we need something of this kind to bring us to our senses. A doctor attending an erysipelas case is not necessarily ruled out of attending confinement cases. Every doctor has a closet where he can put his clothes and grip. Put your clothes in there and fumigate them. If you haven't anything else make a good strong antiseptic solution, and wash yourself.

GASTRIC ULCER AND ITS MEDICAL TREATMENT.*

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A gastric ulcer is the result of a destruction of the gastric mucosa and at times of the deeper structures, of the nature of a degeneration or necrosis. It may be acute or chronic, with or without a tendency to cicatrization. On the autopsy table an ulcer or scar is found in 3 to 10% of the material, varying no doubt with locality and the expertness of the examiner.

The etiology of this subject is a paper in itself. In this paper we shall not attempt to give all factors concerned in their production, or all experiments performed, but simply those which appeal most strongly to us. Great discrepancy is found among the writers in regard to the frequency of ulcers in the two sexes. This is probably due to the inattention given to the acute and chronic varieties. The acute occurs much more frequently in woman, and the chronic in man. This same thing applies to the age factor. Acute ulcer appears in the first three decades of life, and the chronic during middle and advanced life.

The stomach, being the most abused organ in the human anatomy, receives much trauma that may cause an erosion. This erosion readily heals in normal, healthy organs. Yet, given an erosion with a hyperacidity and a coexisting anemia, healing does not take place, but the condition grows worse. This has been proven in experiments on dogs. Dogs with artificial anemia and hyperacidity will often show gastric ulcers. A loss of the mucosa in these same dogs always locates an ulcer which does not heal until the coexisting conditions are relieved. The embolic theory has lost much ground lately for the lack of an experimental concurrence, yet it remains that if the circulation is obstructed by whatever means, the gastric juices will digest that portion of the mucosa. Lack of alkalinity in the blood streams has always been mentioned with the circulatory causes.

Doctor Van Ijzeren, a Dutch experimenter, has produced ulcers like in all respects to the human ulcer by division of the pneumogastrics below the diaphragm. These sections were followed by paresis and more or less permanent contracture of the stomach, which later developed ulcers in one-half the cases. No hyperacidity existed in any of the experiments. By incisions parallel with the axis of the stomach through the muscularis ulceration was prevented eleven times in twelve trials. Gastroenterostomy was a less constant prophylactic. As a deduction therefrom Doctor Van Ijzeren stated that ulcers are due to a muscular

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spasm which obliterated the blood vessels, thereby producing a necrosis. This spasm is brought about in the stomach by food passing the duodenum, as proved by the prophylactic action of gastroenterostomy. By this section the vagi play the part of a secondary neuron.

Along this same line Doctor Dalla Vedova, of Rome, has experimented with the solar plexus, vagi and splanchnics by resection and injection of pure aseptic alcohol. Fifty per cent of the animals so operated upon showed distinct necrotic changes in the gastric mucosa. Hyperacidity was found in many of the cases. From a long series of experiments of this kind he drew the conclusion that many ulcers were due to changes in the abdominal sympathetic system. Ulcerative precesses so produced were chiefly located in the antrum pylori. The gastric coats, minus their normal nerve supply, were readily attacked by the gastric secretions.

Too little has been said in regard to septic conditions that may produce ulcers. In all parts of the body we see ulcers originating from septic causes. It is undoubtedly a fact that the normal stomach is well prepared to handle a certain amount of infection, but when abnormal, is open to serious infection. The oral and intestinal mucosa shows us many examples of this type of infection. Mild infection of the gastric mucosa leads to gastritis, gastritis to hyperchlorhydria. With a slight trauma, plus infective agents, we have a perfectly ideal area for an ulcer. This with continual chemic and mechanical irritation becomes practically unhealable.

In the above I have attempted to bring before you the fact that not one factor is the cause of gastric ulcer, but that these factors working together may produce this result,-also that all ulcers have not a common origin. Our pathology also demonstrates to us that many features are at work in their production. The acute ulcer, microscopically, is usually small, round or oval, with a punched out appearance and shaped as a truncated cone. No granulations appear at the base and the edges are thin and pliable. Fifty per cent. of acute ulcers occur in multiple form. The chronic ulcer occurs single, very irregular in shape, size variable, with its long axis usually transverse. Edges are indurated with cicatricial processes. The peritoneum is often thickened with adhesion to nearby organs. It has frequently occurred that the base was formed by the nearest organs. In the distribution of ulcers over the gastric surface but few tables are given wherein the two varieties are separated. Fenwick, in his analysis of cases, in this regard finds that seventy-five per cent of the chronic ulcers are found in the pyloric extremity, and the acute ulcer was about equally located in the three segments. This distribution has an important bearing on the treatment.

In the symptomatology we meet with some of the most complex problems. Allow me to draw a general picture of a patient suffering from this malady: Patient states that trouble is of long standing which has gradually grown worse; began with pressure and distress with belching of hot acid water ofter eating. Later, more or less acute pain with some nausea soon after eating but disappearing by next meal time; is afraid of food; vomiting was uncommon at first, but now quite regular, which gives relief; appetite fair; only rarely do they recite hemorrhages. Patient shows good appearance but has a low red cell count and low hemaglobin. Depending on the length of time trouble has existed, there is a degree of emaciation. Each symptom having its own peculiarities compels us to take them up separately. The pain of gastric ulcer occurs at the height of digestion, influenced by the character of the food. It is paroxysmal, of burning, stabbing character, felt in a circumscribed area in the epigastrium. At times and in certain patients it may be diffused, radiating to the back and thorax. A characteristic feature is the fact that pain appears one and one-half to three hours after eating, although the fasting stomach may cause pain due to gastrosuccorheic conditions. Pressure increases, while relaxation tends to relieve it. After an attack of such pain soreness is present. Adhesion may change both the character and the location of the pain.

Painful pressure points, located in the epigastrium and dorsal regions, are found in about one-third of ulcer patients. In the epigastrium such a point is usually in median line, possibly to the left and less frequently to the right. In females it is usually lower than in males. The same point in dorsal region is found usually to the left of the median line, between the seventh and twelfth dorsal vertebrae.

Vomiting is less frequent than the cardialgic attacks. Though pain and vomiting frequently appear together, we may have either one or both in the same case. Many patients never vomit. In fact, nausea and belching is more common. When vomiting does occur, its regularity and occurrence at the height of digestion are prominent features.

The vomitus is highly acid, with sour odor, containing both coarse and fine particles of food. In general, digestion has progressed farther than is ordinarily expected. Hematemesis occurs in about one-third of the patients, but one must be certain that it comes from the stomach. Hemorrhage varies from microscopical amounts to a fatality. We may have all grades of anemia, depending on the severity of the hemorrhage. Examination of the stomach contents after a test meal usually shows a high total acidity, increased chemism and a high value of hydrochloric acid. As indicated by the etiology we may have an ulcer without this being true.

The complications of ulcer, perforation, hemorrhage, contractures, subphrenic abcesses and carcinoma are remarkable for their seriousness.

The prognosis of ulcer depends greatly on the duration of the trouble and the existing complications. Today the mortality is eight to ten per cent. Accidents are liable to occur at any moment.

The diagnosis is extremely difficult in many cases, but the great majority should be recognized. A carefully written history should be made in every case. Often it is of extreme value to repeat this. Stomach contents examination is absolutely imperative in every case. Each symptom must be analyzed alone. At times the patient will have to be under observation for some time. The diagnosis of the condition alone will not do, but the complication must be recognized.

To see a rational treatment we must know the mechanism of healing of an ulcer. At first there is an inflammatory proliferation of the connective tissue at the base of the ulcer, which by gradual contraction leads to cicatrization. This can only occur in small ulcers. Large ulcers must heal by gramulation, as do ulcers in other parts of the body. The paramount question is: Why is a gastric ulcer so tardy in its repair?

1st. Because of continual thermic, chemic and mechanical irritations.

2nd. Because of the lack of rest.

3rd. Because of the co-existing hemic and vascular conditions.

4th. Because of its infected area.

The answer to this question shows us a way to the rational treatment of gastric ulcer. To meet the named conditions patient must be placed in bed, preferably in a hospital, there to remain at least three weeks. Nothing is to be given by mouth the first three days except a little water and cracked ice. Nutrition is to be supported by one of the nutrient enemata every six hours. For the next ten days or two weeks the diet consists of milk, meat solution and bouillon given in small quantities at frequent intervals. The pain of this period is usually relieved by hot compresses to the epigastrium. During the second period of ten days to two weeks we may use the diet of Leube, which consists of boiled calf brains and thymuses, boiled chicken or pigeon gruel, tapioca, milk mush, finely scraped raw beef and oatmeal. The diet of the third period, of the same length of time as the other two, is articles of the two other periods plus half-rare broiled beef steak, scraped raw ham and mashed potatoes. To this last diet, after this period, are slowly added food stuffs of easy digestiblility, depending upon the patient's condition.

To reinforce the diet and rest treatment we have many drugs which can be used with the greatest satisfaction. The bismuth treatment is

the oldest and of undoubted value in the early stages. Large doses the first thing in the morning, after which patient lies quiet for one hour, are very useful. When we know of a high acidity we may add an alkali as we do in hyperchlorhydria.

Gerhard warmly advises silver nitrate in solution in those cases which have pain with a fasting stomach.

Carlsbad salts are advisable from the second week on. By careful regulation of these salts the bowels are kept in perfect condition. These salts also influence the hyperacidity. After the first week in the anemic cases iron preparations and arsenious acid are indicated. Of the iron preparations, a two per cent. solution of the sesquichloride of iron in one drachm doses is one of the best, although some of the organic iron preparations have been successful. Expressed juice of raw beef steak is a valuable adjunct here. If morphine is given it should be given with atropine, since morphine increases the gastric secretion.

A patient w ith a hemorrhage should be placed in bed, with ice packs to epigastrium, and kept quiet with morphine. Gastric lavage with ice water has been advised, as also with adrenalin chloride. Stimulants at this crisis are of questionable utility, as the majority increase the blood pressure. Normal salines have met with some success, yet one must use them with great caution.

In perforation and contracture a surgical intervention is our only hope.

When we have continued hemorrhages and cardialgic attacks after the rational treatment has been carried out, surgical consultation must be had and acted upon.

CARCINOMA OF THE STOMACH.

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Carcinoma of the stomach is a disease which is generally first encountered by the general practitioner, and is of sufficient frequency and importance to warrant at this time a thorough review and discussion of its history, symptoms, differential diagnosis and treatment. In its early stages it is a condition that is very difficult if not impossible of recognition as a distinct disease, hence it is very important in all cases of doubt, that the counsel and assistance of the surgeon should be early sought as thus frequently some lives may be saved and much suffering averted, and life very materially prolonged.

The stomach, barring the uterus, is the most common seat of internal

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cancerous disease,which for the most part,occurs in persons over forty years of age, or after middle life, and I believe occurs in almost the same ratio in the male and female sex,being about five to four in favor of the male.

The varieties of the disease are the epithelioma, scirrhous,medullary and colloid; for a description of which we respectfully refer to any standard work on pathology and morbid anatomy. Of these the scirrhous form is perhaps most frequently encountered. The region most commonly affected is the pylorus and lesser curvature; however no section is exempt, and the fundus as well as the greater curvature frequently become the seat of primary infection. It may spread widely over the surface of the organ and may involve neighboring ones, as the liver, spleen, pancreas, omentum, etc. This involvement may occur by continuity of tissue or by metastasis. In fact any gland or tissue of the body may become involved through this metastatic process. The growth has its origin in the mucous tissue and in its progress has a tendency to slough through the mucous membrane, in which event there is liable to be hemorrhage in the form of haemoptysis or hematemesis.

Alcoholism, previous ulcer, mental worry, and a family history of cancer or tuberculosis, are considered predisposing causes.

The literature on this part of our subject is rather vague and indefinite. In only a very small percentage of all cases is it possible to trace a definite family history of cancer or tuberculosis; and in none of the cases that have come under my personal observation was it possible to elicit the slightest trace of such a history. A history of alcoholism and previous ulcer in some cases can be more clearly traced.

As already stated the early symptoms are vague and indefinite, and may be classed as the functional disturbances; as anorexia, nausea, vomiting, hemorrhage, pain, constipation, etc. The loss of a desire for food is a fairly constant and valuable symptom, since it makes its appearance early. The sight of food frequently becomes repulsive and nausea may become a striking feature of the case. Vomiting, while a fairly constant symptom, varies materially in different cases. It may come in paroxysms only. If the cancer involves the pylorus it may be deferred for an hour or more after eating; if at the cardiac orifice it will make its appearance earlier; and if the fundus, the lesser curvature or other portions of the stomach wall are the seat of infection it may be entirely absent.

Hemorrhage is rarely profuse, and as a rule is a later symptom, the blood is generally mixed with the stomach contents, becoming altered and dark, giving rise to the so-called coffee ground vomit. In some cases it is a very early symptom, is profuse and bright red in character. Pain

which is perhaps one of the most common and important symptoms of this disease is generally referred to the epigsatrium,but may be reflected to the shoulders, back, and loins. Patients generally describe this pain as burning and gnawing in character. The pain may be aggravated by taking food, but rarely becomes gastralgic in character as does that of ulcer in the stomach. There is generally a remarkable tenderness upon pressure in the epigastric region. The bowels are as a rule constipated, in some cases obstinately, and rarely do we have diarrhea.

These functional disturbances are sooner or later followed by a train of general symptoms which can not well be mistaken and should be conclusive even to the tyro.

Anemia is a fairly early symptom and sometimes is so marked and profound that it is mistaken for pernicious anaemia. This anaemia coupled with the progressive emaciation soon gives rise to that ashen sallow appearance of the skin known as the picture of cachexia. The progressive loss of weight and emaciation is a constant and decisive symptom. In some cases, however, under proper dieting with relief by treatment of the catarrh of the stomach; in cases of cancer of the pylorus with dilatation by lavage; and after profound mental impression from exploratory operation or otherwise, increase in weight to a considerable amount has been reported.

There is in all cases some rise in temperature, however this rarely is excessive, and some cases at times show the temperature subnormal.

A tumor is frequently present especially at the pylorus, which may materially assist in the diagnosis. The situation of this tumor in the stomach wall may vary greatly, and when situated over the aorta may emit pulsating movements, and on this account it has been mistaken for aneurism of that vessel. This tumor mass when situated at the pylorus will gradually produces obstruction and causes dilatation of the organ, with its resulting physical signs. Stenosis of the cardiac orifice is sometimes produced in the same way. Loss of strength and weakness are commensurate with the anaemia and loss in weight. This symptom of weakness and fatigue coming on at more or less frequent intervals, observed in all cases, impressed me more than any of the so-called general symptoms. The patient feels as though every support beneath him was giving way. He sinks exhausted and almost lifeless upon his bed, and feels that his last moments are rapidly approaching. However, after a few days rest in bed with some stimulating and restorative treatment, the condition subsides and he gets out feeling very much better, and builds up a false hope that he is nearing rapid recovery, only to be disappointed in a few weeks or a month, with another and if possible,

a more severe attack. These paroxysms of weakness make their appearance in some cases very early.

A condition on which much stress is laid and which in many cases is very valuable is the examination of the stomach contents after the Ewald test meal, and the Boas test meal, for the absence of hydrochloric acid and estimating the increase of lactic acid, it being fairly well established in all cases of carcinoma there is an absence of free hydrochloric acid. Should the cancer, however, have developed on the site of or in the cicatrix of an old ulcer, this symptom may be negative. It is, however, sufficiently constant to merit an early application for the purpose of reaching an early diagnosis.

The average duration of carcinoma of the stomach is from about one year to eighteen months, and very rarely may be prolonged to two and one half years.

The diseases or conditions which ought to be differentiated from carcinoma are chronic gastritis, gastric ulcer, pernicious anaemia, cancer of the pancreas, etc.

After the cardinal symptoms of progressive emaciation, anaemia, pain, tumor, coffee ground vomit, dilated stomach, absence of hydro chloric acid with presence of lactic acid and a deep-seated cachexia, have developed and are clearly before us and occurring in an individual over forty years of age, we should have no difficulty in arriving at a definite conclusion even in the absence of a tumor and the characteristic vomit. The difficulty generally lies in being able to make this differentiation sufficiently early to be of benefit to the patient or before the operative period has passed.

Chronic gastritis in contrast with cancer, may occur at any age, pain and tenderness are less marked, vomiting is not common, hemorrhage rare and when it does occur is in considerable quantities, no fever, loss of flesh is not marked, there is no decided anaemia, no cachexia, profound weakness does not occur, there is no tumor and it is amenable to cure.

Gastric ulcer occurs most frequently in early adult age, and more in the female, the pain is gastralgic in character and may be excited by taking of food, is located in the epigastrium, but is generally circumscribed, indigestion may be slight, tumor is very rare, hemorrhage may be common and generally profuse, no fever as a rule. It will recover or become chronic and continue for a long period. There is no lactic acid after a Boas test meal and usually there is excess of hydrochloric acid. In gastric ulcer with cicatricial pyloric thickening and stenosis (with gastric dilation) the difficulty of differentation is increased because this condition exactly resembles cancer of the pylorus. The

history of the case, the comparative youth of the patient, hemorrhage and the probable excess of hydrochloric acid are the distinguishing points.

In pernicious anaemia, the absence of the characteristic vomit, the examination of the stomach contents, the less marked emaciation, the usual absence of pain and especially the examination of the blood, are the cardinal points of distinction.

In cancer of the pancreas if there is a tumor present, it will be immovable. There is generally some jaundice, hydrochloric acid is present, and coffee ground vomit is always absent.

I now desire to present a few clinical cases which I think are somewhat in harmony with the foregoing statements.

CASE 1. Mrs. C. age about 45 years, nationality, Irish. Mother of six children. I found my patient in bed suffering from profound weakness and collapse, unable to move hand or foot, with severe pain, incessant vomiting and inability to take food of any kind. A tumor the size of a large orange was clearly palpable at the pylorus, and dilatation of the stomach was already clearly marked. The matter vomited was not characteristic and contained the stomach contents only. The only conclusion to be arrived at in this case was scirrhus carcinoma of the pylorus. After several days of restorative treatment, the above symptoms subsided somewhat and she did fairly well, but in several weeks another similar but more severe attack came on and the late Dr. C. W. Adams of Kansas City, Mo., was called in consultation. He confirmed my diagnosis and ventured the opinion that with the apparent stenosis of the pylorus then present, my patient could not live more than two or three weeks. This opinion haunting the patient, with no hope offered for recovery, she began to grasp at straws Some kind friend assured her of a doctor in Kansas City, Mo., who could absorb the tumor by electricity. She sought her saviour and after depositing $25.00 received a treatment which apparently gave relief, and also gave new life, and hope for an early recovery. This, however, proved a vain hope as the second treatment which followed in a few days had the effect of precipitating another and still more severe attack;—another straw was seized. She had found another ever-ready adviser who directed her to go to Excelsior Springs, and the water there would absorb and wash the tumor out through the bowels. She and her daughter remained at the springs several weeks with no better results, and in a very short time after her return home the inevitable occurred. In this case the landmarks were so clearly and distinctly defined, and the physical signs so well marked that error in diagnosis was impossible.

Early diagnosis and operation might have benefited this patient to a remarkable degree.

CASE 2. W. D. M—Bookkeeper, age 46, nationality, Welsh. When about 40 years of age suffered a very severe attack of gastro-duodenal catarrh, and periodically, had what seemed to be a recurrence of the old disease. The attacks would readily subside under the administration of phosphate of soda and intestinal antiseptics. In August of 1899, while I was out of the city for an indefinite period, my patient was seized with a profound attack of prostration and collapse, nausea, complete anorexia, pain in the epigastrium and some cough. For a short time he sought relief through the old remedies I had formerly prescribed, and which had always brought prompt relief. This time, however, less was accomplished and as soon as sufficient strength was regained to enable him to make the trip to Kansas City, Mo., he consulted one of the ablest surgeons of that city who diagnosed the case as pulmonary

tuberculosis and advised immediate change of climate to Phoenix, Arizona. Not being satisfied with this opinion, he sought the counsel of one of the oldest and best general practitioners who confirmed the diagnosis of the surgeon. Armed and supported by these opinions, with his wife and little daughter he started for the desolate plains of Arizona, where he eked out a miserable fall and winter among strangers at the end of which, much reduced in strength, worn out, he determined to return home by way of California. Arriving in Los Angeles he suffered another attack of weakness and collapse and called medical aid. There was in this case, extensive involvement of the liver, the whole organ being extensively enlarged so that the left lobe covered the entire stomach and forming a tumor mass which extended below the line of the umbilicus. This tumor mass rested upon the aorta in such a manner that with every heart beat a distinct pulsation was communicated to it. This led to error and the attendant made a diagnosis of probable aneurism of the aorta. So soon as travel could be safely resumed, he started directly for home and when he reached the high altitude of Leadville, Col. he suffered a perforation of the stomach wall and the hemorrhage was so profuse that it almost proved fatal. He was, however, so anxious to reach his home alive that he wired me to meet him en route, which I did at McFarland, Kansas, and succeeded in getting him home in a practically lifeless condition. In addition to the large quantity of blood already vomited, great volumes were voided from the bowels after reaching his home. As a dernier ressort, I put my patient on Marchand's Glycogen and strange to say with it, and under the reviving influence of his old time friends he again rallied, taking considerable quantities of liquid food with some relish for a period of about two weeks and even expressed the hope of recovery. At the end of about two weeks however, he suffered a violent chill which was followed by a temperature of 107 degrees F. The right knee joint became enormously swollen, and violently painful. A septic arthritis had developed from absorption through the perforation in the stomach wall. He died at the end of 48 hours, and an autopsy which he had requested I should make revealed a large broken down tumor mass in the lesser curvature of the stomach at the margin of which had occurred a large perforation through the stomach wall from one to one and a half inches in length. The liver was enormously enlarged and infiltrated. As already stated the left lobe covered the entire stomach to a line below the umbilicus and resting upon the aorta in such a manner as to lead one to believe that an aneurism was in evidence.

I feel assured that in this case had every means been applied that science has placed in our hands for making a diagnosis; and such application made early, the egregious error, of making a diagnosis from a superficial examination of pulmonary tuberculosis, and the subjecting of this patient to an exile in the depressing surroundings of the pulmonary resort like Phoenix, Arizona, could not have occurred.

Case 3. T. H. B.—Painter, age 56 years, nationalty Welsh. In the early spring of 1904 he began complaining of an indefinite weakness and fatigue with inability to follow his vocation. Pain which was burning and gnawing in character soon made its appearance. Loss of appetite was complete, the small quantities of food eaten were frequently vomited, but no blood was visible. The bowels were obstinately constipated. No tumor could be detected, and the physical signs of dilatation were absent. A decided cachexia with a mild jaundice, developed very early. There was slight fever with the heart action always in good condition.

I treated this case about one month, but not having made a success of it, this patient also went after strange gods, and making the rounds as they generally do, finally wound up in the hands of the German-American outfit of Kansas City, Mo., who evidently treated the case for pernicious anaemia; as they told my patient it was alto-

gether his blood, and that it was entirely a matter of getting that fluid into proper condition, and he would be a well man. He, however, soon became so weak and emaciated that he could no longer leave his bed to go to Kansas City and in January 1905 I was recalled to take charge of the case. I now went over the case very carefully, and as the general symptoms had become so clearly and prominently developed, I had no difficulty in deciding that I had a cancer of the pylorus or the head of the pancreas (or both) to deal with, and so informed Mrs. B. He lingered critically until May 16, 1905. My colleague, Dr. O. M. Longenecker kindly assisted in an autopsy which revealed a number of modular masses in and about the pylorus with a general thickening of all the tissues. The head of the pancreas was also involved. A microscopic examination showed this to be adenocarcinoma.

There is no medical treatment for carcinoma of the stomach other than that calculated to relieve or palliate the various conditions that may arise during the progress of the disease. The rational treatment must therefore resolve itself into early correct diagnosis and if possible early thorough operation for its radical cure.

DISCUSSION.

DR. PORTER: One remark, that the author of the paper made,—the difficulty of making a diagnosis. This has been very thoroughly impressed upon my mind within the last year by a case which came under my observation. The case was that of a young lady about twenty-seven years of age who had consulted me some three months before for a pain in the right epigastrium. I examined her as I thought very carefully and made a diagnosis of disease of the gall bladder or bile duct. I did not see the case any more until called in hurriedly one Monday afternoon to find her lying on the porch writhing in pain. She referred her pain almost entirely to the right epigastrium, about the point of the ninth rib. The abdominal muscles were relaxed, the pulse was seventy-two, the temperature slightly below normal. The pain was very severe. I watched the case for a short time and made a diagnosis of perforation, perhaps of the gall bladder or bile ducts, or the duodenum. I summoned one of the leading surgeons of Topeka in consultation and for fear that I might bias his opinion in some way I declined to give him any history of the case, as the family were intelligent people and he could obtain the history from them without any coloring from me. He did so, and strange to say, he made the same diagnosis, almost, I had made, and advised an operation. This of course, was my idea of the proper thing to do. The pulse was gradually creeping up, the temperature was rising slowly, the symptoms indicated something of a very severe nature, and declared something must be done of a radical nature. This surgeon performed the operation, with my assistance, made an incision in the right rectus muscle, examined the gall bladder, gall duct, pyloric end of the stomach and duodenum; there was absolutely no evidence of any peritonitis so far as we could determine. The appendix was brought into the incision. It manifested evidence of some old inflammation which had entirely subsided.

No pathological condition being found in the abdominal cavity, the incision was closed. The condition of the patient remained the same. While being removed to her room, her bowels moved very copiously, the movement being very foul smelling. Almost immediately the symptoms began to improve, the pulse and temperature in a few hours reaching the normal point, the bowels moving several times more. This led us to believe that the trouble was caused not by any lesion of the alimentary tract, but by absorption of ptomaines. The day following the operation, the condition of

the patient was excellent,–no pain, and no tenderness anywhere except in the vicinity of the wound; pulse and temperature normal; the look of anxiety and suffering was gone from her face, and in its place was a look of happiness and well-being, such as you might see on the face of one who had passed a severe crisis and felt that recovery was well in hand. I visited her about midnight of the day following the operation. Her pulse was a little more rapid, but other symptoms were unchanged. About 3 o'clock a. m. I was summoned hastily to see her; she uttered a few delirious sentences after I arrived, sank rapidly into a coma from which she never aroused, and died about 11 o'clock a. m. of that day, about 36 hours after the operation. The autopsy revealed a general peritonitis, and a perforating ulcer about one and one half inches to the left and back of the cardiac orifice of the stomach. This case was marked by the absence of symptoms. At no time was there rigidity of the abdominal muscles, neither was there retraction nor distension. While she frequently said that she "hurt all over," she invariably referred the origin of her pain and point of its greatest intensity to about the point of the ninth rib on the right side. The marked improvement after the free evacuation of her bowels, misled me both as to the diagnosis and prognosis. I wish to state that there is no reflection to be cast upon the surgeon who performed the exploratory laparotomy for failing to find the perforation, as from its location in the vault of the diaphragm, it was only with the greatest difficulty at the autopsy that the origin of the trouble could be found.

DR. GRAY: This subject of carcinoma of the stomach is especially interesting to me from the fact that we all agree that where a person is afflicted with carcinoma of the stomach there is absolutely no medical treatment that offers any hope whatever. While on the other hand the work done by surgeons in the last few years, and especially the work that has been done recently by the Mayo Brothers in this country, has demonstrated pretty conclusively that there is great hope of relief for many of these cases, and also the earlier they can be operated upon the greater prospect for permanent relief. It has also been demonstrated that the mortality attending these operations is extremely low. If I remember rightly, the last twenty cases I think, operated upon at Rochester by the Mayos, the mortality from the operation was something like three per cent. I might be mistaken about that but it was not higher than that.

Last Saturday night a week ago, I presented a man at the Academy of Medicine at Kansas City, Mo., from whom I had removed about two-thirds of the stomach also the hepatic flexure of the colon; a case that could not be regarded as a favorable case for operation, yet the result obtained is very gratifying to the person. He now is engaged as a traveling salesman for a mercantile company and has gained some fifteen or twenty pounds since he left the hospital on the first of March, looks well, and I believe has a prospect of a number of months of freedom from the trouble.

Of course, medical treatment offers nothing. I do not believe any one will contend that there is any relief for these cases from a medical standpoint; hence the early recognition of the trouble is the important thing.

DR. BLASDEL: Several thoughts have suggested themselves during the reading of the papers, and the discussion since, and the first is as to the cause of gastric ulcer. We find in reading all the writers that the stomach digests itself, or we get infection or something of that sort, it has much lower resistance. It is not on the same plan that the surgeon operates and opens and drains a belly full of pus, cuts his finger; the patient gets well and the surgeon dies. We have the infection because we have the bacteria present all the time.

Another thing; I would like for him to have been more specific in his technique. We find the great trouble in diagnosis. We know there is no medical treatment of

carcinoma of the stomach. We put the patient to bed and absolutely stop all feeding by the mouth, and use rectal feeding.

I remember one case in particular. There were none of the landmarks of carcinoma. I was called to see him and found a little malaise; the second day afterwards I was called to see him, and he had vomited a great quantity of blood. I went over him carefully and could not find that point of pressure I ought to have found. He got up and went about his business again, then there came that gradual decline we see in malignant trouble. I called good counsel and the counsel thought it was pancreatic trouble. By the time I found the enlargment it was too late to do anything. I got a postmortem and found the liver bound in a mass of adhesions. I think with our modern surgery the abdomen should be opened and an exploratory incision made.

Dr. Sterrett: It is not always an easy matter to make a diagnosis: I will recite a case of ulcer of the stomach which went on to perforation. The man had been for about thirty days rather severely jaundiced. He came to the hospital because of collapse. We thought he had a perforation of some kind,—the gut or gall bladder. Dr. Hughes operated on this case and found he had perforation,—ulcer perforation. The illustrated thing about this case was that the man gave no history. His first sickness was due to what would naturally come in connection with jaundice, a perverted appetite. He worked up to the day he came to the hospital at eleven o'clock. This case was one in which the man had become jaundiced from catarrhal condition, or from hepatitis possibly. This ulcer perforated about ten o'clock, and he had a feeling of something torn loose; he was sent to the hospital, opened up and showed considerable amount of food in the abdomen. Death occurred. The ulcer gave no symptom. He did not vomit, he did not have any pain after eating. He ate his three meals a day, and worked right straight along. The post mortem findings in this case were that this man had a great many cicatrices in the stomach. The ulcer was located near the pyloric opening.

Dr. Riddell: The treatment is very important, and the essayist on ulcers of the stomach mentioned the periods of time, the first, second and third stages. The period of time, I would think, is absolutely out of the question. I have in my experience treated a number of these cases. In one case I nourished the patient for about twelve weeks on rectal enemata of milk and eggs. Another case where I had severe hemorrhage I requested that they permit me to make an exploratory incision. The patient got well after a period of three weeks complete rest.

I have for the last few years made it a practice to give very large quantities of olive oil to these patients as soon as they can take liquid food. That idea I got from a surgeon in the Philippines. You would be surprised at the amount of food a man will take while lying in bed on his back, taking injections of olive oil, and taking milk and eggs. As much as two ounces three times a day, some patients will take. Give it to them over a long period of time.

Dr. Murphy (Kansas University): This symposium has been very profitable The essayists show clearly that they have seen cases of ulcers of the stomach and carcinoma of the stomach, but what is more important they have profited by their observations. The essayist who considered gastric ulcer, brought to our notice one point which has been brought to our notice by all writers for the last seventy-five years; that is the frequency of the condition in women. According to statistics which are so often quoted from the Massachusetts hospital, five to one occur in women as to men.

Then, another thing, and it seems to me this has a bearing upon the etiology of gastric ulcers, that in women the age at which gastric ulcer occurs is much less than that in which it occurs in men. Osler says that the majority of cases in women occurs

from fifteen to twenty-five, and of men between forty and fifty. This suggests this and this has been written by Kinney, and Joslin, from the Massachusetts hospital, shows there is a difference between gastric ulcer in men and in women. We know that heart disease and liver disease do cause gastric ulcer. In advanced age we look for ulcers from these sources.

We have heard, and it has been recognized for a long time that ulcers come from burns of the skin.

It is probable that two facts are established in the study of gastric ulcer, and these are, that there is a limited destruction of tissue in the mucous membrane of the stomach. Secondly, that this is digested out. The ulcer shows this, but more important, the area around the ulcer shows micro-organisms.

Whether or not anaemia, and that has been considered by several men who have discussed the papers this evening, is the first cause of gastric ulcer, has not been determined. Surely it is a contributing factor. One of the gentlemen who discussed this a moment ago emphasized this idea by nourishing the patient, raising the resistance, increasing the resistance as early as possible. It is the great therapeutic indication in treatment of gastric ulcers. It seems to me in the years gone by too much has been said of the mechanical irritation of the surface of the ulcer from food. Recently it has been shown by operations on the stomach that when the stomach wall is opened under local anaesthesia that the wall of the stomach may be punctured and cut without evidencing pain. We only have pain from the gastric ulcer when distention of the peritoneum has taken place. The more painful are those situated at the pylorus, because the part that is most movable causes more contraction of the peritoneum, so from this comes the pain in gastric ulcer.' Now that gastric ulcer does not come from direct mechanical injuries was shown some years ago in an operation which was made in Kansas City. One of these fakirs who went about the country eating lamp chimneys, and nails, etc, had swallowed knife blades and things like that. The surgeon who operated upon that case told me that the stomach was very greatly distended. In that stomach they searched and looked, but no evidence of gastric ulcer. They found no destruction of tissue; merely a thinning of the walls.

Dr. Haskins: One point in reference to gastric ulcer has always been a puzzler to me. If the ulcer once forms in the stomach, and it is due to gastric secretions, why do we not immediately have perforation? If gastric ulcer is due to digestive action why doesn't it immediately perforate? One point that I would like to ask the consideration of the society: We know that hyperchlohydria is not serious, in fact it is only rather an unpleasant symptom and it is always present in ulcer. My idea is that the reason why gastric ulcer does not result fatal in a short time may be due to the fact that the hyperacidic gastric juices themselves in some manner have some retarding action. I am inclined to the belief that gastric ulcer is bacterial.

Dr. Lyons: One of the discussers, I believe, spoke of keeping a patient on nutritive enemas, twelve weeks on olive oil. If the patient was in such straits as to demand that, I believe that was a surgical ulcer, and I do not believe it right for an internal medical man to treat gastric ulcer twelve weeks, running the chances of hemorrhage and the other complications that come so rapidly and fatally, I do not believe we have the right to expose our patients to that kind of treatment. Seven or eight weeks is all I think any of us can allow him unless it is in these lesser cases.

Dr. Murphy spoke of trauma not being a cause of ulcer in this case of this fakir swallowing knives and glassware, etc. That demonstrates clearly that trauma does not produce ulcer. Undoubtedly this glass produced some erosions, small

cuts, but that readily healed and the area was not right for infection, or the anaemia of these excited conditions from the nervous make-up were not there.

I believe I heard the statement that hyperchylorhdria was always present in ulcer. I am certain that it is not so, because it would be diagnostic; We very frequently find an increased acid, but not increased hyperchlohydria. With all of us there will always be a certain amount of ulcers that none of us will ever diagnose.

Diagnosis, is something we can secure with a great majority of cases, not all; and I do not believe more than eighty per cent of them will be diagnosed. One needs consultation always, and always to be ready to call in the surgeon.

DR. BARNETT: My belief is, investigate early and thoroughly and if the case is so strongly marked that it appears there is ulcer or cancer of the pylorus, or any part of the stomach, call in the surgeon and make an operation. Now I believe that there is no medicinal treatment for carcinoma of the stomach other than that which is calculated to relieve the conditions that may arise in the course of a lingering disease of eighteen months. No remedy is known that will have any effect upon carcinoma or cancer of any character, and I therefore would advocate first, make an early correct, diagnosis, and an operation for radical cure of the disease.

THE ABNORMALITIES OF THE URINE AND THEIR SIGNIFICANCE.

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For the successful study of this subject it is essential that we overcome that which is common to each of us; viz., an inborn prejudice. Let us therefore free our minds from this, and approach the subject with as little bias as we would a broken bone; since its careful consideration is fraught with importance in respect to diagnosis, prognosis, treatment and the welfare of our patients.

In the preparation of this paper, I have consulted freely Butler's "Diagnostics of Internal Medicine," and Simon's "Clinical Diagnosis." I have endeavored to consider only the essentials, and to leave out the unpractical and all that smacks of laboratory gymnastics.

Normal urine is composed of water and solids in the proportion of 960 parts water to 40 of solids in a total of 1,000. The most important solids are urea, sodium chloride or common salt, and uric acid.

Urine is separated from the blood by the parenchyma of the kidney. Blood circulates through the kidney in contact with one side of a membrane. The cells of this membrane partly by a selective action, but mostly by osmosis take up waste material from the blood and pass it on as urine. The amount of urine daily in health is subject to great variation, owing to differences in individuals and their diet. The average for the adult man is 1200 cc, the adult woman 1000 cc, and for a child between two and twelve years as many ounces as the age in years multiplied by two. These are only averages, and as before suggested

variations are wide. One half these amounts over a short period may be within the range of health. So also may be very large quantities as two or even three times the above averages. For instance, there occurs a physiological increase in cold, damp weather, and following the ingestion of large quantities of liquids. A physiological decrease is seen during the heated season with a dry atmosphere, when perspiration is at its height.

Pathologically the amount is increased in amyloid kidneys. The amount reaches 2000 to 4999 cc, in chronic interstitial nephritis, and 10,000 to 20,000 cc. in diabetes. With the defervesence of acute fevers an increased amount is a favorable sign. Pathologically diminished urine—oliguria—occurs in the acute fevers and congestions, in parenchymatous nephritis, and following great losses of the body fluids as in vomiting, and in severe diarrhea or hemorrhage. The secretion of no urine, (anuria) is rarely met with, and before anuria is diagnosed the catheter should be used to ascertain if there is not retained urine in the bladder. Anuria exists at times in acute nephritis, in Asiatic cholera and following poisoning by cantharides, phosphorus, or turpentine. Death follows complete suppression of the urine on an average in twelve days.

The specific gravity in health is, 1013 to 1025 when the quantity is normal. With quantities in excess of 1200 or 1500 cc. the sp. gr. may be lower than 1013 in a healthy subject. On the other hand if the quantity be physiologically diminished the sp. gr. may be above the 1025 and not be abnormal. The sp. gr. is valuable in determining the excretion of solids. However, it is only a fair index and especially so if it be taken from a single specimen. But considered in connection with the total output for 24 hours, it becomes a most excellent indication of the capacity of the organs to eliminate solids.

These solids amount in the healthy adult to 50–70 grams daily. Diminished solids frequently accompany backaches, headache, neuralgia and insomnia; and are indicative of renal insufficiency. They are greatly increased in diabetes mellitus, in which the sugar output alone may be 2 or 3 times the above total healthy solids. Estimation of the total solids is made by multiplying the last two figures of the sp. gr. by 2.33. This gives the solids in 1000 cc. If, then, more or less than this amount represent the 24 hours output correction has to be made accordingly. Thus I have found the following: Total urine 1 day, 1500 cc. sp. gr. 1009, .09 x 2.33=20.97 the number grains in 1000 cc. But in this case we find we have 1500 cc. Hence we again mulitiply 20.97 x 1.5 and obtain 31.4, the number of grams of solids per diem, an amount too small by 20 to 30 grams for health.

Urea is present in health in quantities ranging from 20 to 40 grams daily. Its source is the proteids. Its production takes place chiefly in the liver. Increased urea occurs in the acute fevers (due to tissue destruction),and in diabetes mellitus (due to tissue destruction). Urea is diminished in nephritis and renal insufficiency. Greater diminution is seen in liver diseases, (as carcinoma, the cirrhoses, and acute yellow atrophy). In this last condition its excretion may cease altogether. In uremia a lessened urea output is a cardinal symptom.

Uric acid in the urine comes from the nucleins, a class of the albumins. It occurs in normal urine in amounts ranging from 0.4 to 1 gram daily. It is increased by a diet rich in nucleins; as, nuts, peas, beans, sweetbreads, and by such beverages as beer and coffee. It is increased pathologically in leucaemia, in lithemia, in some cases of diabetes, and in acute gout (during and immediately following the attack). The elimination is low in chronic gout, in chronic interstitial nephritis, and in most cases of diabetes. The source, the mode of origin, and the pathologic relations of uric acid, along with those of xanthin bases and other purin bodies, are illy understood. Many theories there are, to be sure, but this very multiplicity shows the lack of accurate knowledge of the underlying processes. These substances may be considered of little clinical importance, especially so until we have better information regarding their relations to pathological processes.

Indican:—the very small amount of this found in normal urine has its source in the large intestine. Physiologically a diet of red meats gives the maximum amounts, while that of milk the minimum. In pathological quantities it arises from disease of the stomach or the small intestine. The presence of a putrefactive organism is necessary to its production. Indicanuria then signifies: (1.) putrid pus in some part of the body, or (2.) purefaction in the small intestine, or (3.) gastric disease (acute or chronic), especially if accompanied by a diminished or absent HCl. Here comes in carcinoma with marked indicanuria, exceeded by only one other condition, that of ileus. In regard to the importance of indicanuria, Simon says,

"An examination of the urine in this respect is at least as important as the testing for sugar and albumen, and points of decided importance not only in diagnosis but also in prognosis and treatment may thus be gained."

Normal urine contains no sugar or so little as to be of no clinical importance, and in such minute quantities, its presence is not demonstrable by ordinary tests. An exception to this is when very large amounts, say six or eight ounces, have been eaten; whereby the power of the liver to transform sugar to glycogen has been exceeded and the excess appears in the urine. This is the so-called digestive glucosuria.

A transitory glucosuria accompanies pregnancy, the acute fevers, diphtheria, scarlatina, typhoid, measles, cholera, influenza, and may be due to the action of poisons on the medullary center for the motor control of the liver. The persistent glucosuria is the one of supreme importance, and is met with in thyroid disease, in lesions of the floor of the fourth ventricle, but chiefly in diabetes mellitus. The amount excreted in this disease may be very great,though the severity of the disease is not always to be measured by the amount of sugar. In fact, very aggravated cases of diabetes may be accompanied by a very small sugar output.

The pathological condition underlying glucosuria is not so well known as it might be. How much is to be charged up to the muscular tissue in not utilizing the sugar brought to it by the blood; and to what extent the condition is due to the inability of the liver to transform its sugar supply into glycosuria are questions still unsettled. I take it, however, that with diabetes mellitus there is usually disease of the pancreas and especially of those portions known as the islands of Langerhans.

Albumen pathologically is found in urines in quantities ranging from a mere trace to 2 to 3% by weight. The quantity being in proportion to the intensity of the disease in acute parenchymatous nephritis; while in the chronic interstitial variety the amount may be very small and may be detected only by the more delicate tests, or by finding occasional casts with the microscope. In still more extreme cases a diagnosis of nephritis is made without finding albumen by dependence upon other signs, such as increased pulse tension, arterio-sclerosis, and enlargement of the left heart. The albnminurias may be classified as, (1.) physiological (?) or functional, (2), pathological but not renal. (3), pathological and renal. I use the word physiological with (?) since it is doubtful if there is no pathology underlying the presence of albumen; though there are cases in which none is demonstrable by present known methods. I prefer the term functional for such cases.

1. Functional albuminaria occurs under a variety of conditions: as, present in the evening, but absent in the morning urines (the so-called cyclical buminuria); following a big dinner rich in proteids (dietetic albuminuria); still again during menstruation, or following a cold bath, severe mental labor, deep emotion, or heavy exercise. A case in point:

A man coming to my office to be examined for insurance had husked corn hard his first two days of the season. The urinalysis showed albumen in marked quantity. Four days later there was no albumen. There is none now. A typical case of functional albuminuria from severe exertion; yet who will say that there was no pathologic condition for a few days at least?

2. Pathological albuminuria (not renal) is that in which most of the disease is outside the kidneys themselves and is met with accom-

panying delirium tremens, epileptic seizures, goitre, convulsions, the acute fevers, and diseases of the heart, lungs and liver. It is frequent in urines associated with cystitits, urethritis, and pyelitis. Here the microscope usually shows abundance of blood and pus. Hence that instrument is indispensible in determining the source of the albumen.

3. Pathological (and renal): Here there is disease and almost death of the renal parenchyma. In a healthy condition the cells lining the glomeruli and the convoluted tubules of the kidney prevent albumin from passing from the blood to the urine. These same cells when diseased permit the passage of albumen from the blood, where it serves a useful purpose to the urine where it constitutes a pathologic condition. Here albuminuria signifies a nephritis, acute or chronic.

To summarize in a few words: 1. Albuminuria may or may not mean a nephritis, and the mere presence of albumen in a single specimen is not sufficient to condemn a patient as afflicted with an incurable Bright's disease. 2. Glycosuria usually, but not always, signifies diabetes mellitus, which so far as known is a disease of the pancreas. 3. Indicanuria is indicative of intestinal indigestion or the presence of putrid pus in any part of the body. 4. The total solids excreted daily afford a measure of the eliminative ability of the kidneys; while the sp. gr. of a single specimen is only a fair index and should be considered only a step toward the finding of the total solids. 5. Uric acid and its class with our present lack of accurate knowledge is of little clinical importance.

SOME KITCHEN TESTS TO DETECT ADULTERATION IN COMMON FOODS.

(We extract the following from Prof. Bailey's article in the September Bulletin of the Kansas Board of Health.)

Apparatus and Chemicals Required for the Kitchen Tests.

In addition to the ordinary kitchen dishes and utensils, the following will be required: A glass funnel about three inches in diameter; some white, cut filter paper about five inches in diameter; and a medicine dropper. The chemicals required are: A 4-ounce bottle of strong hydrochloric (muriatic) acid; a 4-ounce bottle of aqua ammonia; quarter of an ounce of ferric alum; a 4-ounce bottle of alcohol; a 1-ounce bottle of tincture of iodin; a quarter pound of fullers' earth; half-ounce of logwood chips; and a few square inches of turmeric paper. All of these can readily be obtained at any drug-store.

1.—Canned Vegetables.

Vegetables put up by reputable manufacturers who think it worth while to keep a good brand on the market are usually of good quality and wholesome. Sometimes, however, we find coloring matter and preservatives present. Notice the appearance of the tin can containing canned vegetables or fruit. If it is a convex instead of concave at the ends, and if when water is poured on the end of the can and the can is punctured bubbles of gas come out through the water, the contents has begun to ferment and are not fit for use.

The only coloring matter usually found in canned vegetable is copper, which is added to produce a natural green color. This is more liable to be found in peas and beans. It has also been frequently used in pickles. To test for copper: Mash some of the sample with a stiff spoon,and put a teaspoonful of the pulp in a teacup, with three times as much water. With a medicine-dropper add thirty drops of hydrochloric acid, and set the cup in a pan of boiling water on the stove. Drop a bright two-penny nail in the mixture, and keep the water in the pan boiling for about twenty minutes, taking care to stir the solution occasionally with a splinter. Pour out the contents of the cup, rinse off the nail and examine it. If any appreciable quantity of copper is present in the food, the nail will be plated red by the copper.

The preservatives most commonly used in canned vegetables are borax, sodium, benzoate, and salicylic acid. Sodium sulfite is also sometimes added to bleach the product and to act as a preservative. Saccharin, which acts slightly as a preservative, is used with such vegetables as sweet corn, as a sweetening agent.

To detect borax or boric acid, mash a sample with a tumbler used as a pestle in a tea saucer, add a few teaspoonfuls of water, and strain through a cloth, putting the wet, folded cloth in the funnel.

Collect about a teaspoonful of the liquid, that comes through the filter in a sauce dish, and add to this four drops of hydrochloric acid. Dip into this a solution a piece of yellow turmeric paper about an inch square, and then dry this paper by placing it in a clean saucer over a teakettle of boiling water. If borax is present, the yellow paper will become cherry-red when dry, and if a drop or two of ammonia be put upon it when cold, the color changes to a greenish black.

To detect sodium benzoate or benzoic acid, macerate and filter the sample as above, using a somewhat larger quantity. By squeezing the bag gently, obtain two ounces of the liquid. Place this solution in a narrow bottle holding about five ounces. The ordinary quinine bottle of the druggist is convenient to use for this purpose. Add a quarter of a teaspoonful of cream of tartar and about three tablespoonfuls of

chloroform, and mix thoroughly with a splinter. Do not shake too vigorously or the chloroform will not separate readily from the rest of the liquid. Pour the mixture into a tumbler, and after the chloroform layer has settled to the bottom of the tumbler, with a medicine-dropper take out all the clear chloroform possible, and place one-half of it in a glass sauce-dish and the remainder in a tall five-ounce bottle containing about a tablespoonful of water. Set the dish on the outside of a window ledge, close the window, and allow the chloroform to evaporate. In cold weather the sauce-dish should be placed in a pan of hot water before being placed on the window ledge. When the chloroform has evaporated, if benzoic acid is present it will be seen in the bottom of the dish in small flat crystals. If the dish is warmed, the peculiar odor of gum benzoin can be readily recognized.

To test for salicylic acid, use the other half of the chloroform solution, which was reserved in the bottle, and add to it a piece of iron alum about as large as the head of a pin. Shake the mixture and allow the chloroform to again settle to the bottom of the bottle. If salicylic acid is present, the upper layer of the liquid, or the line separating the two liquids, will be of a purple color.

Saccharin is used in the place of sugar to sweeten various food products. It is made from coal-tar and is about 500 times as sweet as ordinary sugar. To detect this substance, the sample of food is extracted with chloroform as described in the method for detecting sodium benzoate, and the chloroform solution is allowed to evaporate in a glass dish in the open air. If a considerable amount of saccharin is present, the residue left in the dish will have an intensely sweet taste.

II.—Canned Fruit.

There is very little excuse for the use of preservatives, and one at all for the use of artificial coloring matters in canned fruits. The preservatives mentioned under canned vegetables are those more commonly used, and the methods for their detection given in the previous section may also be applied to canned fruits.

III.—Jams, Jellies, and Preserves.

There is no class of food products, with the exception of spices, so commonly adulterated and sophisticated as jams and jellies. The basis for the cheap jellies is often the pumice or refuse from the cider-mill, the sweetening is glucose or corn syrup, the coloring matter is a coal-tar dye, and the use of a preservative is almost always necessary. Starch is also often used as a filler or gelatinizing agent.

To detect a coal-tar or anilin dye, mix a few teaspoonfuls of the jam or jelly with some water and filter through filter-paper. The filter-

paper should be folded across the middle, and again at a right angle to this fold. Place in the funnel so that there shall be three thicknesses on one side and one on the other. Moisten the paper with water to hold in its place. Add a few drops of hydrochloric acid to the filtered solution of the jelly, and place it in a teacup in a pan of boiling water on the stove. Boil a small piece (about an inch square)of white woolen cloth or nun's veiling with a little soap, and, after rinsing, place it in the colored solution to be tested. After heating for ten minutes, take out the cloth and rinse it in clear water. If the cloth is not colored, the experiment may be discontinued,as artificial coloring matters are not present. If, however, the cloth is colored, to confirm the test, heat the cloth in a teacup in clear water containing about a teaspoonful of ammonia. This will dissolve the anilin color out of the cloth, but will have little effect on a natural fruit color. Take out the piece of cloth and add enough hydrochloric acid to the contents of the cup so that the solution shall not smell of ammonia. Put into this solution a new piece of washed woolen cloth, and heat again in a pan of water. If an anilin dye is present, the cloth will be dyed, and, after heating a short time, may be taken out and rinsed in clear water. This method of testing may also be applied to tomato catsup, which is very frequently artificially colored.

If considerable starch paste has been added to a jelly, it may be detected by adding to the cold filtered solution a few drops of tincture of iodin. The production of an intense blue color indicates starch. Notice that this color may be modified by any dye that is present in the sample examined.

IV.—Flavoring Extracts.

The extracts in most common use are those of lemon and vanilla. Extracts of lemon, according to the United States Pharmacopœia, should contain five per cent. of oil of lemon, and about eighty-five per cent. of alcohol is required to keep this in solution. Much of the extract of lemon on the market contains so little oil of lemon that it can with difficulty be measured. The oil is also often replaced by some other essential oil, as that of lemon grass. To hold the small quantity of oil of lemon in solution, a twenty-five or thirty per-cent. alcohol is often used. The yellow color of this product is produced by the use of a yellow anilin dye.

As oil of lemon is held in solution by alcohol, to test the character of the extract, add to a teaspoonful of the sample, in a tumbler, three times as much water. If the sample is genuine the oil of lemon will be thrown out of solution and the liquid will become turbid. If the solution remains perfectly clear on the addition of the water the extract is of a very poor quality.

Extract of vanilla, if genuine, is made by exhausting vanilla beans

with alcohol. Frequently Tonka beans are in part or wholly substituted for the vanilla beans. The coloring matter in the artificial extract is usually caramel, or burnt sugar and artificial vanillin is added to strengthen the ordinary product. To detect caramel, shake the bottle, containing the extract, and observe the foam on the top of the liquid. If the extract is pure the foam is colorless; but if caramel has been added, there is a brownish color at the point of contact of the bubbles until the last bubble disappears.

As pure extract of vanilla contains considerable resin, which is held in solution by the alcohol, a test may be made for this as follows: Evaporate about two tablespoonfuls of the extract in a sauce-dish placed over a teakettle of boiling water. When one-third of the liquid has evaporated off, pour the residue into a tumbler and dilute with water to the original volume. If the liquor is turbid,and the resin separates as a brownish substance, the extract is genuine. If, on the other hand the liquid remains clear after dilution, though of course a brown color, this indicates that it is artificial.

V.—Vinegar.

Vinegar is usually made from cider, wine, malt, or spirits. Much of the so-called "white wine vinegar" is made from spirits or alcohol. One method of detecting the source of a vinegar is to rinse out a tumbler with the sample and allow it to stand over night. The odor of the residue will enable one who is accustomed to these odors to detect the source of the vinegar. Another method is to evaporate some of the vinegar in a tea saucer over a teakettle of boiling water. The odor and taste of the residue left in the saucer are characteristic. From spirit vinegar the residue is very small and practically odorless.

To detect the addition of caramel to a vinegar, add about two teaspoonfuls of fullers' earth to two ounces of vinegar, and filter into a tall bottle of about five ounces capacity. The first part of the filtrate should be poured through the filter a second time. Compare the color of a sample of the vinegar which has not been filtered. This may be conveniently poured into another bottle of the same size as that containing the filtered sample. If much of the coloring matter has been removed by filtration, this indicates that the sample has been colored with caramel.

VI.—Sugar ; Honey.

Artificial honey is sometimes made by the use of common sugar and glucose, which is flavored to resemble the natural product. To detect the latter, add to a somewhat dilute solution of honey at least an equal volume of alcohol. The production of a white precipitate of

dextrose, which finally settles to the bottom of the glass, indicates the presence of glucose. This test may also be applied to a solution of candy. Glucose is not, however, properly considered an adulterant in candy. To detect starch in candy, boil some of the solution, and after cooling, add a few drops of a tincture of iodin. The production of an intense blue color indicates starch. White sugar, especially granulated, usually contains a little blue coloring matter,such as ultramarine. This may be detected by making a strong solution of sugar in a tumbler and allowing it to stand for several days. The blue coloring matter will finally settle to the bottom of the glass. If saccharin is added to candy or a food product, it may be detected by the test given under "Canned Vegetables."

VII.—Spices and Condiments.

Spices, especially those which are ground, are very often adulterated. If a sample has not a strong spicy odor and taste, this is an indication of adulteration. Most of the adulterants of spices are of a starchy character; many spices also naturally contain starch. This is not the case however with cloves, mustard, and cayenne, so these may be tested for starch as follows: Stir a half-teaspoonful of the spice into half a cup of boiling water, and heat in a pan of water on the stove for a few minutes. Cool the mixture, and dilute with water so that the solution shall not be very strongly colored. Add a few drops of tincture of iodin and the production of a blue color indicates starch.

VIII.—Baking Chemicals.

Baking Powder.—As the statement that appears on the label of a baking-powder can is often deceptive, it may be of interest to prove whether a sample contains alum or not. To test for alum, make a fresh extract of logwood, either from the chips or the solid extract, by treating with water and pouring away the first and second extracts. Use the third extract obtained and allow it to settle. Place two teaspoonfuls of baking-powder in a teacup and add to it four teaspoonfuls of cold water. With a medicine-dropper add twenty drops of extract of logwood to the mixture and stir with a splinter. Place the teacup in a pan of hot water on the stove and examine the color after two hours. If the baking-powder contains alum, or a compound of aluminum, a distinct lavender color will be produced, but if this substance is not present in sample, only a dirty brown or pink color will appear. It is well to make a test at first on samples of known composition, so as to recognize the colors accurately.

Cream of Tartar.—The cream of tartar on the market is frequently adulterated with acid calcium phosphate, alum, and even plaster, and starch. A simple test to determine the purity of the sample is to pour

boiling water upon it and stir. Pure cream of tartar will dissolve completely, but many of the adulterants will only partially dissolve. When cold, the cream of tartar will crystallize out in very characteristic crystals. To detect starch, add to a little of the cooled solution a few drops of tincture of iodine. The production of a blue color indicates that starch or flour is present.

IX.—Tea and Coffee.

There is hardly any adulterated tea on the market, although there are some very poor grades. Ground coffeee is very often adulterated. Some simple tests for adulterants may be made. If ground coffee is dropped into a glass of cold water, the genuine coffee will float, and will not discolor the water for several minutes. Most of the adulterants sink to the bottom and leave a brown trail in the water. But little coffee is contained in the so-called coffee substitute. The proportion of coffee may be ascertained approximately by dropping into cold water, as very few coffee substitutes will float.

Many of the substitutes are of a starchy nature. Starch maybe, tesetd, for the ordinary infusion prepared for the table, when cold by diluting it until it is not too strongly colored, and then testing by tincture of iodin.

X.—Dairy Products.

Milk, butter, ice-cream and cheese are sometimes adulterated. Milk is adulterated by adding water, coloring matters, and preservatives. When water is added to milk, this changes the natural color, and the milk becomes bluish white. If a yellow coal-tar dye has been added to the milk to restore the natural color when watered, this may be detected by adding an equal quantity of strong hydrochloric acid to a sample of the milk and afterwards heating. A pink coloration indicates the presence of the dye.

Another test is to allow the milk to stand in a tumbler for about twelve hours, or until the cream rises, and notice the color of the cream and of the milk layer. If the lower layer is of a yellow color, about the same as that of the cream, an artificial color is indicated.

If milk does not turn sour in the usual time, the presence of a preservative is indicated. Baking soda is sometimes added to correct the acid of the milk. If an appreciable quantity of this substance has been used, the milk, after standing a few hours, will have a slightly alkaline reaction; that is, it will change a piece of yellow litmus paper to an orange-red color.

Other preservatives are sometimes used, but that which is the most common is formaldehyde, because a little goes a long way as a preserv-

ative. To detect this substance, place four tablespoonfuls of the sample in a teacup, with an equal quantity of strong hydrochloric acid and a piece of ferric alum, about the size of the head of a pin. After mixing, by giving the contents of the cup a rotary motion, place the cup in a pan of boiling water on the stove, and allow to stand for five minutes. If formaldehyde is present the mixture will be of a purple color. A similar test may be made for formaldehyde in ice-cream, although if starch is present in the cream this may modify the shade of the purple.

The substitutes for genuine butter are "process" or "renovated" butter, and oleomargarin or "butterin." Process butter is made by treating old or rancid butter by melting, skimming, and allowing the brine and curd to sink to the bottom, whence it is drawn off. Air is then blown through the melted butter-fat, and the product is churned with milk or cream. Oleomargarin is made from various mixtures of oleo-oil, cotton-seed oil, neutral lard, and milk or butter.

The spoon test may be used to distinguish fresh butter from renovated butter and oleomargarin. A lump of butter the size of a hickory nut is placed on a large iron spoon and heated over the flame of a small kerosene or alcohol lamp or over a gas flame. Fresh butter will melt quietly, with many small bubbles throughout the mass, which produce much foam; oleomargarine or process butter will sputter and crackle, like hot fat containing water, and produce but little foam.

To make the "milk test," as it is called, place about two ounces sweet milk in a wide-mouthed bottle, which is set in a pan of boiling water on the stove. When the milk is hot, add a teaspoonful of butter, and stir with a splinter until the fat is melted. Place the bottle in a pan of ice-water and stir continually while the fat is solidifying. If the sample is butter, either fresh or renovated, it will solidify in a granular condition and be distributed through the milk in small granular particles. If, on the other hand, the sample is oleomargarin, it solidifies practically in a single lump, so that it may be lifted from the bottle with the stirrer.

XI.—Eggs.

Probably the best method for testing the freshness of eggs is the time-honored one of candling. The egg is held between the eye and a bright light. A fresh egg shows a perfectly uniform rose-colored tint, while if it is not fresh there will be numerous dark spots.

In packed eggs there is a tendency for the white and yolk to slightly intermingle along the line of contact. Packed eggs also are apt to adhere to the shell on one side.

XII.—Meat Products.

The preservatives most commonly used in meat products are borax and boric acid and sodium sulfite. The latter chemical also assists in the retention of the natural red color of the meat. If the meat keeps an exceptionally long time without a tendency to spoil, or if it retains its red color, the presence of preservatives is suspected.

The method for testing of borax, which has already been described under "Canned Vegetables," may be used in testing meat products. The meat must be finely divided, and should be warmed with water for some time, and the liquid which is filtered off should be tested.

Kansas June Report–Dr. E. P. Hatfield, Secretary of the Kansas State Board of Medical Registration and Examination, reports the written examination held at Kansas City June 12–13, 1906. The number of subjects examined in was 10; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 82, all of whom passed. The following colleges were represented:

PASSED.

College.	Year Grad.	Per Cent.
Hahnemann Med. Coll., Chicago	1905	84
University of of Kansas	(1906) the grade of 75 was reached by one, 76 and 77 by two each, 78 by one, 79 by theree, 80 by two, 81 by five, 82 by four, 83 by seven, 84 by six, 85 by five, 86 by four, 87 by three, 88 by one, 89 by two, and 90 by one, total, 47.	
Kentucky School of Medicine	1895	78
St. Louis Univ.(Marion Sims-Beaumont Coll.)	1906	84
Washington University	1906	83
Barne Medical College	1904	80; 1906 75 79 82
Homeopathic Med. Coll. of Missouri	1895	85
Kansas City Hahnemann Med. Coll.	1905	86
Eclectic Medical University	1906	79 80 80
University Med. Coll. of Kansas City	1906	78 78 80 80 84 84.
Ensworth Central Med. Coll.	1905	77 1906 75 75 75 76 76 79 80 80 82.
Eclectic Medical Instituet, Cincinnati	1906	83
University of Nashville	1906	78
Meharry Med. Coll.	1906	84

Ethical Advertising.–A correspondent criticises even the following found in the Pratt Republican. This appears however innocent, but indiscreet.

We learn from Dr. Peak that a boy was born to Mr. and Mrs. Southard, of Naron, last Thursday, and a girl came to the home of Mr. and Mrs. W. A. Childers, near Cullison, last Sunday.

FROM THE EDITOR'S DESK.

The Board of Registration held a metting at Topeka, October 10. About twenty candidates were examined; of whom, some five were rejected. The case of Dr Ferguson of Kansas City, who is being prosecuted for fraudulent licensing was continued because State Senator Getty, who is the attorney for the prosecution, was absent. The case of Dr. Wilgeist, of Coffeyville, who is being prosecuted on the claim that he has only one year of preparation for the practice of medicine, instead of four—as required by law, was practically settled in favor of the defendant, the board holding that the evidence was not sufficient to take away his license. Dr. Meffert of Emporia brought in a petition for re-instatement signed by some of the very men who were active in his prosecution. Such vacillation on the part of the laity is, of course, common, and, we are glad to note that the board did not think is necessary to change their rulings in his case. The board is trying to help to purge our ranks of those who are unworthy: but, without very united support on the part of the profession, it can accomplish nothing. The next meeting will probably be in April and in Kansas City where it is hoped that something definite will be done in these cases.

Dr. Carson. George Creel, the editor and publisher of the Independent of Kansas City has recently been courageous enough to attack Dr. Carson, the notorious "drugless healer," whose advertisements of "the temple of health," appear in nearly every newspaper. We suggest that it would be not only profitable financially, but also morally for our members to procure the copies of this journal containing its exposure of Dr. Carson and lay them out on their waiting room tables. When a man has the courage to attack such a fakir as Dr. Carson, the profession ought to support him; and, since it is from Kansas that Dr. Carson gets his greatest revenue, it is nothing more than just that the Kansas physicians should take an active interest in the matter.

The American Medical Association: A systematic attack is being made on the American Medical association. Sometimes, it assumes the form of an attack on the Journal of the American Medical Association or its present editor; sometimes, again, it assumes the form of the cry against monopoly ("the trust.") In any case, the origin is the same; because, in practically every instance, we can trace the agitation back to some one whose business (money-getting) is endangered by the organization of the profession. One class of agitators is made up of the medical

journals which for a long time have been supported by the profession and who have betrayed the profession to the proprietary medicine syndicate. These journals naturally are aroused when they find that this great source of revenue is to be cut off if they would not obtain the disfavor of the ethical physicians. They must choose between their advertisers and their subscribers. Some few, be it said to their credit, are choosing to follow the interests of their subscribers; the majority, however, are coming out openly to fight for freedom to use and advertise any drug or combination of drugs which gives them the greatest money profit. Among these we have noted the Medical Brief, the Medical Record, the Texas Medical Journal and the Oklahoma Medical News Journal. The Medical Record has been particularly nasty in its attacks on the Journal of the American Medical Association; but, it was not until recently that the worm turned and Dr. Simmons took the trouble to reply to his critics. Needless to say, the reply forms very interesting reading and will do an immense amount of damage to the Medical Record. We were told the other day by an enemy of the American Medical Association that William Wood and Company, the publishers of the Medical Record, were the meanest publishers in America—i. e., they had pirated foreign books and reduced the quality of the journal to the point where they could make the most money possible. Of course, this is only the statement of one who has been in their employ for a long time; nevertheless, it is another straw showing the way the wind is blowing.

As a practical application of this discussion, we would suggest to members of the Kansas Medical Society that they scrutinize carefully the medical journals coming to their desks and discourage the coming of those which are supported by the forces inimical to organized medicine. There is no doubt that medical organization is benefiting the physicians of Kansas tremendously: but, organization is still an infant in its swaddling clothes with us; and, therefore, demands careful nursing. Our physicians are gradually waking up to the wrong of cutting rates, of seeking and giving commissions for reference of cases, of using patent nostrums (which debase the profession in the eyes of the laity), and, most of all, of the eternal local fight. It falls to us, therefore, to keep awake on this point to which we have here called attention.

Entertainment Committee: The Wyandotte County Medical Society has appointed the following committee to take charge of the general entertainment of the members in attendance at the meeting in Kanasas City next May: P. D. Hughes, chairman; Hugh Wilkinson, secretary; J. E. Sawtell treasurer: W. B. Barnett, George M. Gray;

E. J. Lutz; G. H. Hoxie; S. S. Glasscock; C. L. Zugg; and, Preston Sterrett.

Dr. Gray: Dr. George M. Gray has been drafted as a mayor for Kansas City. It appears that the citizens of Kansas City have at last become aroused to the evils of law violation and are looking for the man who will put the city before the party. We are very glad that Dr. Gray has consented to act as a candidate for the citizens' party. He certainly is a very strong man; and, will do credit both to his profession and the city, if he is elected, as he ought to be.

The University of Missouri.—For several years, the faculty of the University Medical College of Kansas City have been trying to obtain the location of the medical school of the University of Missouri for Kansas City. The wisdom of a change from Columbia—a little town of five thousand—to Kansas City has been thoroughly emphasized by the success of the School of Medicine of the University of Kansas; so, that now, even the conservative members of the faculty of the school of medicine in the University of Missouri are willing to make the change. They appear, however, unwilling to incorporate the University Medical College, or, come to Kansas City under any obligation whatever, so, it appears that at the last meeting of the Board of Curators of the University of Missouri, it was decided to move the third and fourth years (that is, the clinical department) of the school of medicine to either Kansas City or St. Louis, according to which city should offer them a bonus of $250,000.00, the amount required for the necessary buildings and equipment. These two cities are given until the first of January in which to raise the bonus. At St. Louis, the Barnes Medical College equipment, worth about $280,000.00 has been, we understand, offered to the University of Missouri. Nevertheless, the outcome is still in doubt; because, while it is very apparent that Kansas City could not offer the required bonus; yet, political pressure is being brought to bear which may finally bring the institution to Kansas City. We Kansans should welcome the coming of the University of Missouri to Kansas City; because, it would insure a university grade of work in this city, which supplies us with the greater number of accessions to our ranks.

The Medical Papers That Count—A large proportion of the mass of material sent in to our medical journals (and published by them) is valueless because it represents subjective opinion rather than objective fact; i. e., instead of giving a series of careful case reports, showing exactly the condition of the patient, the method of treatment, and the exact results obtained, they are inclined simply to formulate their opinions and copy the details of diagnosis and treatment from some

text-book that happens to be on their shelves. The opinions of such authors, are, of course, of value only to those who know them well enough to discount the personal equation.

On the other hand, the helpful papers are those which give a record of several cases say, of typhoid fever, telling us the number of leucocytes and other conditions of the blood, noting the mental condition of the patient, showing the line of treatment, and the exact results, in temperature and pulse. In this connection, we would call attention to the very valuable contribution on epidemic jaundice by Dr. Ross of Sterling which was printed in our last issue. If Dr. Ross had only been able to supply us with complete data, in all the cases reported, his record would have been one that would have been quoted throughout the United States and Europe. What was lacking was the blood examination, the chemical examination of the urine, and the post-mortem findings on the fatal cases.

We trust that at the coming May meeting of our society in Kansas City, the authors will take this gentle hint and prepare papers according to the recommendation of Osler; i. e., from their case-books and not from their text-books. By the way, a good example of the kind of papers that do not count is afforded by those usually dictated to the agent of the Medical Brief—simply notes that happen to occur to the author at the moment. We hope that our Kansas City and Topeka colleagues who have issued such papers do not expect their fame to reach posterity on the ground of such contributions to the advancement of the medical sciences.

Publicity.—The frequent criticism that have been sent to the editor's desk regarding the appearance in secular publications of doctors' names in connection with their work, lead us to state at this time some of our own opinions in the matter. We believe that it will be necessary for the profession to agree upon some form of publicity by which the young practitioner may notify the residents of any town that he has settled in their midst. We believe, therefore, that if it were the conventionl thing here as it is in some other countries for a young man, as soon as he reaches a town, to go to the newspapers and insert a notice in the advertising colnmns, using space of about the same character as is used in the medical journals for the insertion of physicians' cards, and announce for a period of three months, say, his equipment and location,—we believe that everybody concerned would be benefited. In other countries, we have noted in the secular press such advertisements as this: "Dr. John Jones, a graduate of the University of Berlin, for two years assistant to Professor Smith, Professor of Gynecology

at the Rockefeller University, has located in Smithville at the corner of Van Buren and James Streets. His office hours will be from one to four each afternoon,'' Such a card could give no offense; and, on the other hand, would satisfy the aspirations of the young man to make his arrival known.

We believe again that it should be permissible for every physician when he is about to take a vacation or leave town for any length of time to insert a notice of similar extent in the secular press. For instance, we have seen notices like this: ''Dr. Henry of 412 East 16th street., will be out of town on a vacation from July 7-16. Dr. Charles Jones of 312 East 14th street, will take care of Dr. Henry's patients.'' As soon as the doctor returns, he announces the fact by a similar card, thus: ''Dr. Henry of 412 East 16th St., has returned from his vacation.'' The advantage of establishing such a standard is that thereby the demand (which is just) for some publicity could be met; and. second, a standard could be set up by which offenders could be judged. There will always appear in secular publications notices about physicians (that is unavoidable) and, is should be the business of the organized profession to regulate this matter so that nothing but perfectly just and tasteful notices appear from men who could be regarded as ethical.

A New Journal has come to our desk under the heading Journal of Therapeutics and Dietetics, edited by Pitts Edwin Howes of Boston, Mass. It claims to be an exponent, especially, of eclectic therapeutics. We regret to say that we find nothing in the first issue which would justify the sending forth of a new journal. More than that, we find that' this journal advertises pinus canadensis, cactina pellets, seng, Peacock's bromides, chionia, ecthol, tongaline, and sanmetto—in other words, its specialty is the advertising of Dr. Lawrence's preparations. This fairly justifies us in the conclusion that the journal is being originated and published for revenue only; and, that this revenue is to be made in exploiting those preparations which have now been excluded from the journals of the organized profession. We regret the attempt and trust that it will receive so little encouragement that it will not be long continued.

The Kansas City Medical Record.—We note that Dr. Fulton's old paper, the Kansas City Medical Record, is being published by an impersonal corporation called the Record Publishing Company, with its office in the Rialto building, Kansas City, Missouri. We have not had the pleasure of seeing the journal lately, but, in its circular asking for advertisements, we find this statement: ''We are the publishers of the Kansas City Medical Record, a high class medical journal, supreme in its class and with the largest circulation of any medical journal in

the southwest." All that we have to say in commenting on this is that it is very important, if true.

An Error.—On page 428 of the October Journal the word "taste" was printed "state." We hope that the paragraph will now be intellegible. On page 412 also occurred the statement inserted by our zealous printer that Dr. Hunt read his article on post graduate study at the Topeka meeting. Dr. Hunt of course, was in London at the time.

The Independence Hospital.—We have received the announcement of the opening of this institution. Dr. F. W. Shelton is the surgeon in charge, and Miss Nano Hickey is superintendent. The city donated water and gas and many citizens united in giving various sums toward the equipment of the institution. We wish the institution success.

Itinerant Quacks.—In one sense it is not worth our while to bother with the itinerant quacks, because their patients always come back to us,—generally in worse condition than before. But from the standpoint of public health, it is decidedly our business to expose these fellows. However, we are here interested only with the newspaper standpoint and quote the following from the Lawrence Gazette (the printers of our Journal) for October 19, with this query. Would the members of the Kansas Medical Society rather pay two hundred dollars a year more for their Journal than have their printer admit such advertisements to the columns of his paper? The Gazette is printing the siren songs of Dr. Carson, also.

BY PROF. JOHN MILLER.

New Invention Here to Treat All Chronic Diseases by Electricity.

For poor circulation and diseases of the blood, brain, nerves, heart and vital organs; invaluable in rheumatic, neuralgia and paralytic affections, endorsed by physicians, electricians and scientists.

Scientists with one accord agree that it is a patent power most wonderfully effective in every disease and that life cannot exist one moment without it. Think of the hundreds of people, once bedridden seemingly for life, who are now active and healthy, taking their share in the world's hard work, and also its pleasures, owing to the marvelous curative effects of electricity applied scientifically with our modern apparatus.

Electiricity is the motive power that sustains life. What steam is to the locomotive, electricity is to the body. If you cut your finger, the result is that it is instantly telegraphed to the brain, but take the electricity out of your arm, and you could cut off your hand and never feel it. Electricity carries an unseen equalizing and harmonizing influence and when intelligently applied it operates quietly, soothingly, and works its wondrous mission with power and efficacy, restoring the healthy polarity of the diseased and impaired organs; acting directly on the nerve centers it stimulates and purifies the blood, equalizing and quickening the circulation, giving renewed life and vigor to the nerves, muscles, and the various organs: quickens the two prime organs

of purification, the liver and the kidneys, to life and activity, improves nutrition natural digestion and repairs and restores the exhausted nerve force. The soothing effect on the nervous system is almost instantaneous.

Prof. J. Miller the magneto-path he cures all chronic diseases without medicine or surgery, in six different methods, including electricty, with which he always has success. No cure, no pay. He charges $3 and up for a cure. Office at 1030 Massachusetts street; Telephone, Bell, 662; Home, 541; Office hours 8 to 10 a. m.; and 3 to 7 p. m. including Sundays.

Secretary Hatfield and The Cancer Salve.—We clip the following from the Ottawa Daily Republic for October 17. We hope that the physicians of Ottawa will stand together now and impress even the newspapers with their power.

An innocent little article in a recent issue of the Republic provoked the wrath of the physicians of Ottawa. The article was as follows:

"An Official Opinion.

"W. J .Costigan, attorney for Joseph Huff in the celebrated cancer case, is in possession of a letter from Secretary F. P. Hatfield of the State Board of Medical Registration and Examination, in reply to a communication addressed to him concerning the case, in which Mr. Hatfield expressed the opinion that the law is not violated in the application of a salve."

The doctors, who caused the prosecution of Huff, hopped onto Secretary Hatfield. When they prodded him he sent to the Republic the following letter:

"Grenola, Kan., Oct. 3.—Editor the Ottawa Daily Republic, Ottawa, Kan., Dear Sir: Will you please give the enclosed statement prominent space in your paper, of the next issue and mail me a copy, and also send marked copy to each of the resident physicians of Ottawa, Kan. Yours very truly. F. P. HATIELD."

The enclosure follows:

Grenola, Kan., Oct 3.—Editor Ottawa Daily Republic Ottawa, Kan., Dear Sir: The article in your paper of the issue of September 28th, '06, headed, "An Official Opinion," is a malicious misrepresentation of the facts in the case. My opinion of the law was given in answer to a letter asking if the "application of a salve for the relief of cancer, when applied with the consent of the family physician, was a violation of the medical law of Kansas." When the statement was made to me as above my answer was that the law was not violated. But as this opinion is claimed as "official." to shield a notorious impostor upon innocent and afflicted people, the parties using it for such purposes deserve the most rigorous prosecution, and the heaviest penalty the law prescribes for conviction; and the secretary of this Board will lend all the help in his power to aid in such prosecution.

F. P. HATFIELD, M. D.,
Secy. Kansas State Board of Medical Registration, and Examination.

The Republic desires to say in this connection that Secretary Hatfield has his wires crossed when he says that the publication of the article was malicious. The item was given space merely as a matter of news. It was written by a reporter to whom Mr. Costigan, Huff's attorney, showed the original letter written by Secretary Hatfield. That letter was written on the official stationary of the State Board of Medical Registration and Examination and is as follows:

"Grenola, Kan., Sept. 4, 1906.—Your letter of inquiry with reference to your

friend who has a cancer remedy was handed to me for a reply. In answer to the same I am sending you a copy of the late law and you can interpret the same as well as I am able to.

"I do not think the law is violated in the applying of a salve. Yours very truly,

F. P. HATFIELD."

CORRESPONDENCE.

Dr. Lardner Replies to Dr. Duncan.

The following letter is interesting, but it does not touch the heart of the matter. It is not a matter of saying, "You're another;" but rather of ascertaining whether this practice of newspaper publicity is hurting the medical profession, or not. Are the people of Chanute in better health because of Dr. Lardner's newspaper interviews, i. e., do they know better how to care for their health? Do they know better how to distinguish true from false medical claims? Is the respect for scientific medicine increased thereby? As an organized profession we must act only on this basis: to promote the health and happiness of the people whom we serve. This, of course demands the good of the organized profession because only by organization will the medical sciences be advanced.

To the Editor:

I see that Dr. E. H. Duncan has written to the Journal posing as the censor of the medical profession in this section of the state.

Articles have appeared in the columns of the newspapers that are obnoxious and have a tendency to offend those who have an "axe to grind," and a personal end to gain by an attack on a fellow physician.

If my memory is not at fault, this is the same Doctor Duncan who took a trip to Niagara Falls last summer, and took up much space in the Fredonia papers, and also several sticks in our Chanute papers detailing his going, coming and the restfulness of his trip.

I believe there are things done by physicians that are more injurious to the profession than the "write ups" given by newspapers; such as the stealing of patients, and the going about in a systematic way through emissaries to undermine a fellow practitioner.

The newspaper man has given me notices through the news columns, and I have never told him not to do so, nor to my knowledge have any of my colleagues, I feel that my standing as an honorable physician in my home town is equal to that of Dr. Duncan at Fredonia, and it may be better, as I have noticed that the man who is the first to cry out, is the one that has something to conceal.

Very respectfully, J. C. LARDNER.

SOCIETY NEWS.

The Golden Belt Medical Society met in Salina at the public library on October the 4th, in two sessions. The first paper was by S. K. Schenck, Salmon, whose thesis was that potassium permaganate injected hypodermically is a positive antidote for opium. The amount should be four to five times that of the poison ingested. The essayist stated that atropine was no good and zinc sulfate was too erosive in its action to be useful. In fact, he did not believe that emetics were at all necessary. His opinion was opposed by the majority of those who discussed his paper. Dr. Harvey said that in his experience atropine and emetics had proven sufficient to save all the cases of opium poisoning which he had had. Dr. Dean of Fort Riley contended that the hypodermic use of potassium permaganate was irrational, but it was a useful drug, if administered per os. Other gentlemen related case histories showing that strychnin and gelsemium were antagonistic to opium. After the reading of this paper, the society accepted the invitation of the Salina physicians to see the town in automobiles. Practically, all the prominent citizens of the town turned out to do the society honor; and, the members were given two hours of very rapid transit around the beautiful streets. Returning from the ride, the members were banqueted at the National Hotel by the local profession.

The first paper of the evening session was "The treatment of eclampsia." Dr. G. M. Anderson maintained logically and skilfully that the real cause of eclampsia was the retention of excretory products because of the pressure on the ureters. His treatment therefore, was first surgical, (emptying the uterus); and, second, to reduce the blood pressure by means of veratrum viride; and, at the same time, to keep the spasms under control by chloroform or morphine, or both. The discussion showed a great diversity of opinion. Those who tried to laud venesection were unfortunately checked in their enthusiasm by the statement of Dr. Winterbotham that, in his experience, venesection had failed as all other means had failed in certain cases. Dr. E. H. Thrailkill of Kansas City read a p aper on the treatment of perineal and perirectal abcesses. Dr. Thrailkill made two points of importance—one, that all these abcesses should be opened early through the skin (not through the mucous membrane); and, second, very freely. He advocated the use of general anesthesia wherever possible. Dr. Colt of Manhattan gave a very complete review of the significance of various ocular troubles in relation to constitutional diseases. Dr. Walker

followed this same line of thought in his discussion and added several symptoms more especially due to the nervous apparatus.

The paper of Dr. W. A. Klingberg of Elmo on the question of whether the physician should dispense his own drugs or prescribe, brought out, as might be expected, a very warm discussion. No general conclusion was reached but the feeling seemed to be that the physicians must, through careful consultation and organization, protect their interests in these matters.

Dr. John Punton's paper (of Kansas City) on the clinical aspect of the borderland of insanity was a real treat. Perhaps the most interesting point made by Dr. Punton was the necessity in Kansas of a detention hospital, where cases of incipient insanity might he treated by very skilful physicians (not political appointees) and where medical students might be trained to recognize insanity in its earliest stages.

The next meeting will be in Wamego in January.

Marion County Medical Society met at Peabody, Kansas, October 10th, 1906 at one P. M.

The following papers were read,—"Nervous and Mental Diseases," by Dr. W. S. Lindsay of Topeka, Kansas; "Typhoid Fever." by Dr. L. R. Buck of Peabody, Kansas,; "Tuberculosis, it's cause and prevention," by Dr. G. P. Marner of Marion, Kansas.

Members present,—Dr. McIntosh of Burns, Drs. Buck, Furst, Dr. Johnson, Elbing Johnson, Chesshir and Mayer of Peabody; Dr. G. Myers, Lincolnville; Drs. Marner and Staufer, Marion. After the scientific portion of the meeting the society and their wives banqueted at the Palisade Hotel. The next meeting will be held at Marion in January.—H. M. MAYER, Acting Secretary.

Sumner County Medical Society met Thursday evening, September 27, at 8 p. m. in the office of its secretary.

S. W. Spitler gave a description of symptoms and effects in a child of a spinal hemorrhage, resulting from a fall.

J. J. Sippey described a similar case seen three weeks after the accident, which quickly recovered under alteratives followed by stimulation.

F. M. Owens reported a case of spinal concussion with instant paraplegia following a fall of a middle-aged man. He also gave the history of a patient developing facial paralysis which cleared up promptly when she aborted a decayed foetus some three weeks later.

W. M. Martin told us of a woman who habitually develops a facial paralysis during pregnancy, which promptly clears up, upon birth of the child.

G. W. Waite reported a case of complicated nephritis which surprised all parties by recovery. He also mentioned two cases of old men who brought him their urine for examination, giving the history of awakening in the night with pain in the back followed by the passage of much urine, which he found to contain pus,—no recurrence.

S. W. Spitler reported a case of vesico-urethral fistula in a woman relieved by thorough dilation of urethra; and related how some fourteen years ago he saw Dr. Emmett of New York make a vesico-vaginal fistula for the relief of same condition.

Our next meeting will be for election of officers, followed by a banquet for members and their wives.—T. H. JAMIESON, Secretary and treasurer.

The Decatur and Norton County Medical Society met in H. O Hardesty's office, Jennings, Kansas, Friday, October 12, 1906 at 2:30 P. M. President not being present, Dr. Hardesty was in the chair. Present: Drs. Smith, Davis, Gaume, Standard, Hardesty and Kenney. Dr. Smith presented a paper on, "Endo-metritis and its treatment," and Dr. Kenney read a paper on typhoid fever. At the clinic Dr. Hardesty presented three cases-one of interstitial nephritis, one of mitral regurgitation and one case of fracture and dislocation of the elbow.

Next meeting will be held in Clayton in December—C. S. KENNEY, Secretary.

Douglas County Medical Society held its regular monthly meeting on October 2, in Y. M. C. A. rooms at Lawrence. There were present Drs. Naismith, Sudler, Smith, G. W. Jones, Clark, and Chambers, also Professors Barber and Emerson, and student visitors.

Mr. Ockerblad, physical director, Y. M. C. A. presented two cases of abnormal hearts for diagnosis and study. Cases examined and discussed by all present.

Paper by G. W. Jones, "How may the local profession increase its efficiency, and broaden its influence?" Paper was essentially a plea for more specialization in study and practice and for more mutual recognition in the profession. A motion prevailed asking Dr. Jones to go before the Northeast District Society with this paper.—H. S. CHAMBERS, Secretary.

The Crawford County Medical Society met October 1 in City Hall auditorium at Pittsburg.

After the scientific program was disposed of, subjects of general interest were discussed.

The subject of city sanitation, and its bearing upon epidemics of typhoid, diphtheria, and other infectious diseases was brought up, and

the general opinion was expressed that physicians should be the natural protectors and guardians of a community, and that it was only by strenuous and united effort on their part that the general safety and welfare of the public could be established and maintained.—FRANCES A. HARPER, Secretary.

Western Kansas Medical Society: The fourth annual meeting of the Western Kansas Medical Society was held at Ellis, Wednesday, October 10. A most interesting and instructive program was rendered. On account of the unavoidable absence of some of the members and limitation of time, a part of the extensive program was omitted. The discussion of papers and clinical cases was entered into with spirit and enthusiasm. Perhaps the most interesting and instructive portion of the program was the clinic furnished by Dr. Howell and Dr. Blake of Ellis. Dr. Blake presented a case of amyotrophic lateral sclerosis, one of typical chronic appendicitis and one of hydrocele. Dr. Howell presented a case of deep acne pustulosum involving the face, chest and back. Members present were: Dr. R. D. Stoner, Quinter; Dr. A. M. Forbes, Selden; Dr. E. J. Beckner, Selden; Dr. O. M. Miller, Oakley; Dr. C. D. Blake, Ellis; Dr. Marsh, Menlo; Dr. F. H. Smith, Goodland; Dr. F. A. Carmichael, Goodland. Visitors.—Dr. Howell, Ellis; Dr. J. H. McNaughton, Gove; Dr. J. J. Barclay, Grinnell; Dr. Barber, Palco; Dr. J. G. Sheldon, Kansas City.

Four applications for membership were presented. Besides the regular routine the question of insurance examinations was fully discussed with a view to adopting a uniform schedule of $5.00 for old line insurance examinations. Some time was also given to the discussion of the present general fee schedule with a view toward establishing a more uniform schedule. The members of this society are energetic workers.

The next meeting will be held at Colby, January 10th, 1907.—F. A. CARMICHAEL, Secretary.

The Labette County Medical Society held its regular monthly meeting at Parsons last night. The following members were present: Drs. Creel, Petty, Bennett, Heacock, Albert Smith, Anderson, Von Trebra, Maser, Hubbard, Kleiser, and Skoog. The following visitors were in attendance: Drs. A. D. Smith, Crawford and Ice.

Mr. George Chapman, an unusual head trauma case, presented himself to the Society. There is an absence of several ounces of brain tissue from the right cerebrum. He has homomymous hemianopsia. A left hemiplegia with complete loss of all sensations is present on the left side.

Dr. Ice, a dentist of Mound Valley, demonstrated somnoform anesthesia. The patient upon whom he was to demonstrate the anesthesia failed to appear, and he took the anesthetic himself, it being given by one of the members of the society. The anesthesia worked very nicely with almost no after effects. The duration of complete anesthesia was sixty seconds. Somnoform is compose of 60% ethyl chlorid, 35% methyl chlorid, and 5% methyl bromid.

Dr. Hubbard read a paper on "General Anesthesia," showing the comparative safety of ether and giving the status of the various anesthetics to date.

"Local Anesthesia, a Boon to General Surgery," was read by Dr. Albert Smith. The advantage of local anesthesia and nerve blocking in major operations was argued. The papers of Drs. Hubbard and Smith were discussed by most of the members present.

The applications of Drs. A. M. Painter and A. D. Smith were reported upon favorably by the Board of Censors and the doctors were unanimously elected to membership. The Board of Censors reported unfavorably upon one applicant. The Society rejected this applicant.

Clay County Society meets at Clay Center, October 10, with the following program;

MATERIA MEDICA.

"Belladonna,".....DR. J. E. MINNEY, Topeka

SURGERY.

"Gun Shot Wounds of the Head,".....Dr. T. E. SCHWARZ, Clay Center

THERAPEUTICS.

"Appendicitic and the Country Doctor,"..... Dr. C. C. STILLMAN, Morganville

Discussion by Doctors Present.

The Northeast District Society meets at Seneca on October 18, Following is the program:

President's address.....P. H. HUGHES
The medical profession as a fraternity.....G. W. SHELTON
How can the local profession increase its efficiency and broaden its influence?.....G. W. JONES
Electro-therapeutics.....M. G. ILER
Hydro-therapeutics.....E. SMITH
The value of blood analysis for children.....M. T. SUDLER
Some causes of early fatality in infancy.....M. R. MITCHELL
Anasthetics.....W. L. CARLYLE
Pneumonia.....A J. BEST
Appendicitis.....S. MURDOCK, JR
The active principle in therapeutics.....J. F. PRESTON
Infant feeding.....J. E. HUNT
The latest cancer cure.....E. T. SHELLY
Ambulatory treatment of fracture of the lower limbs.....L. W. SHANNON
Paper.....C. M. STEMEN

Cascarenna.–In his perplexity of choosing just the laxative or purgative he wants for a child, particularly an infant, the physician will find that Cascarenna affords a most satisfactory solution of the question.

Cascarenna has several commendable properties that other laxative compounds do not possess. It is agreeable to children, being sweet and pleasantly flavored. There is no difficulty in getting them to take it, a point that mothers and nurses appreciate thoroughly. It is a happy combination of well-tried laxatives and gentle purgatives; hence it is not an experiment to prescribe Cascarenna for the first time. It does not gripe or derange the digestive system and owing to the presence of cascara segrada it has a tonic laxative action that imparts to it double value in the treatment of the constipation of infancy and childhood. Finally, Cascarenna is a thoroughly efficient and reliable therapeutic agent, from which the practitioner may confidently expect only the most satisfactory results.

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